APRIL, 1950

Textile Industries

formerly COTTON Textile Industries

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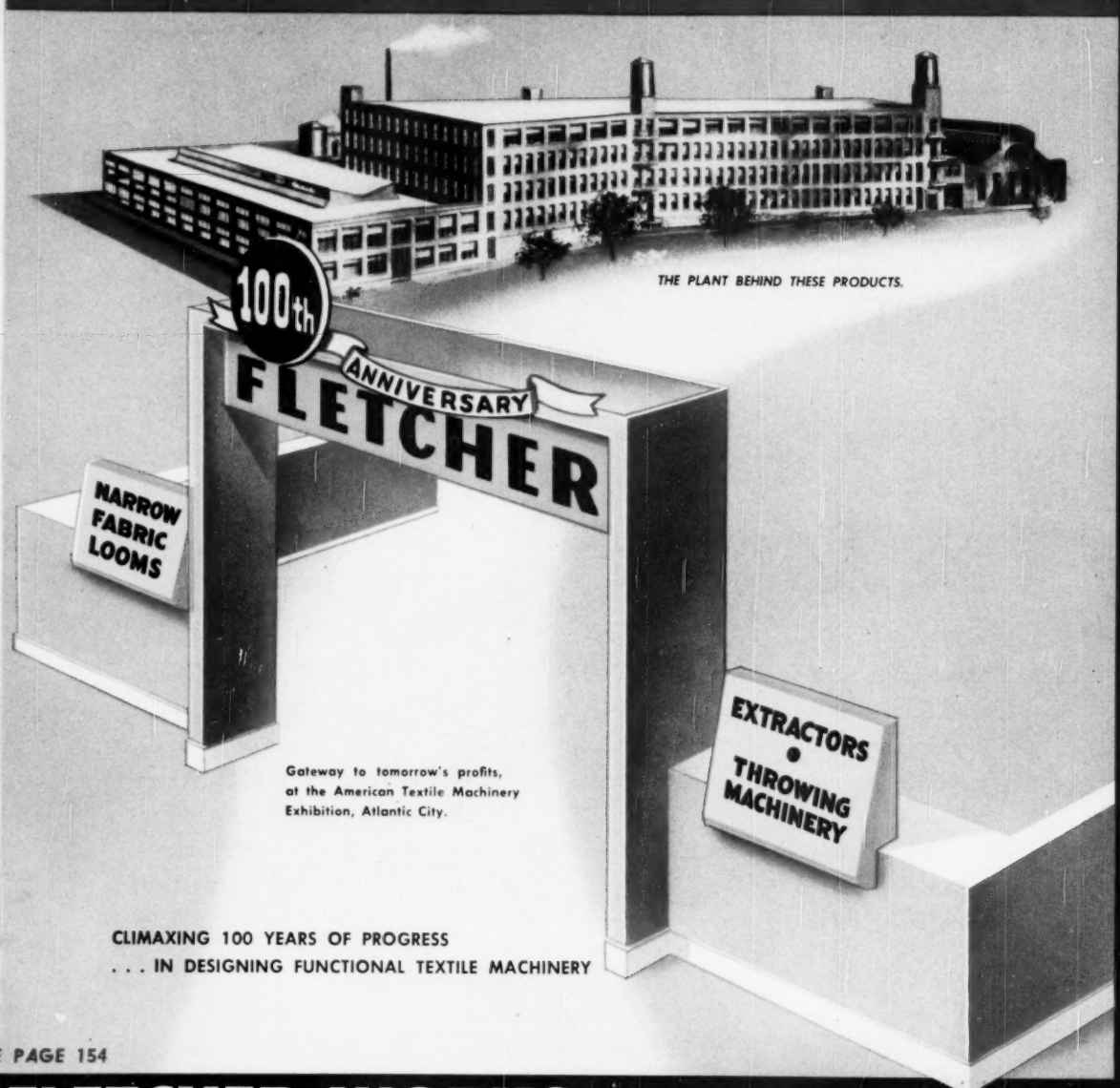
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PAGE 154

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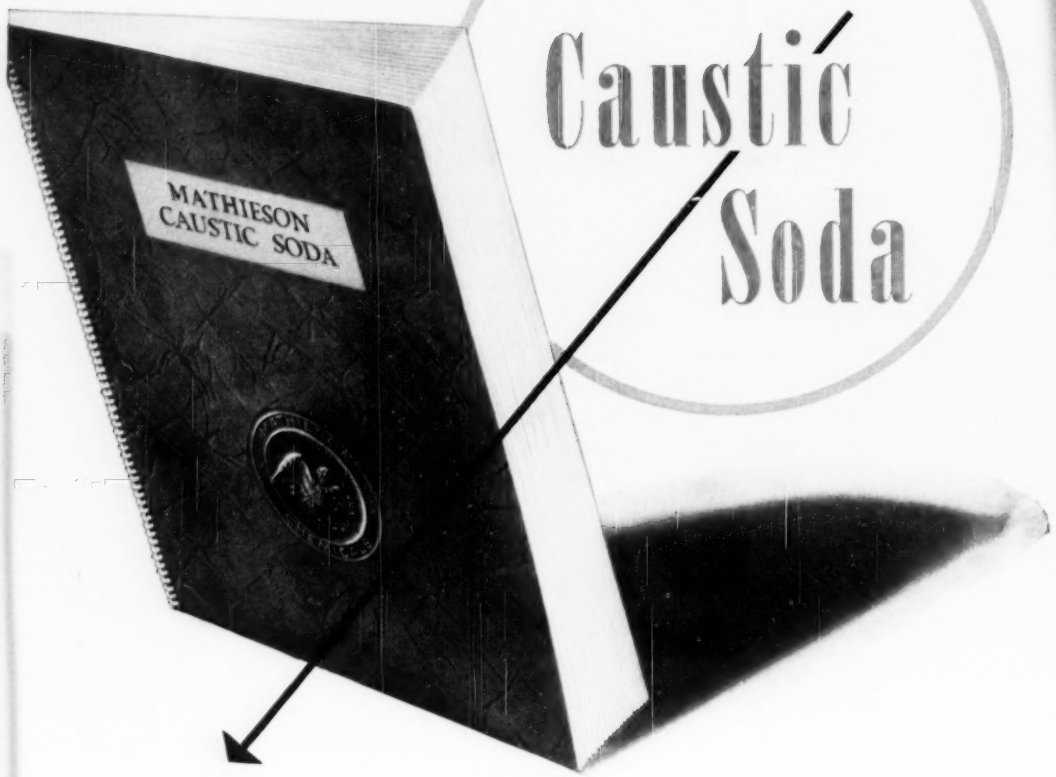

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Volume 114 Number 4

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Textile Industries

Volume 114, Number 4
April, 1950

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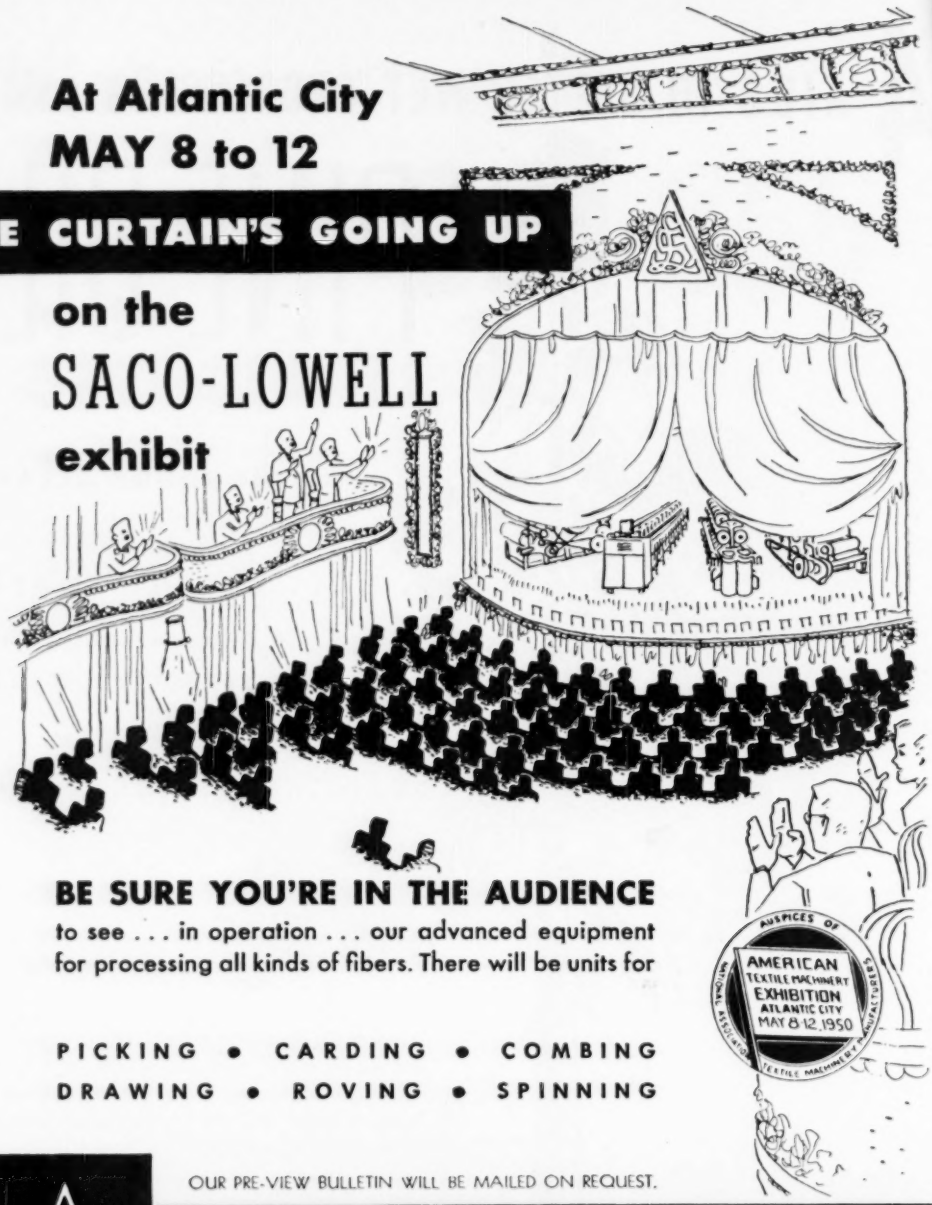

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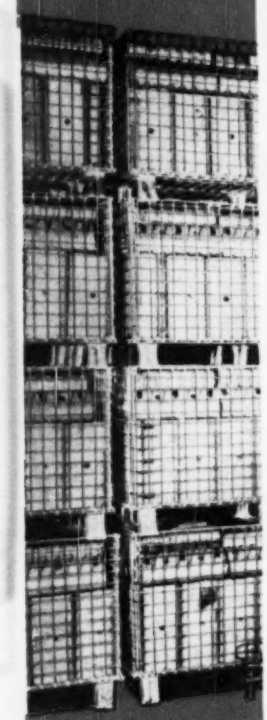

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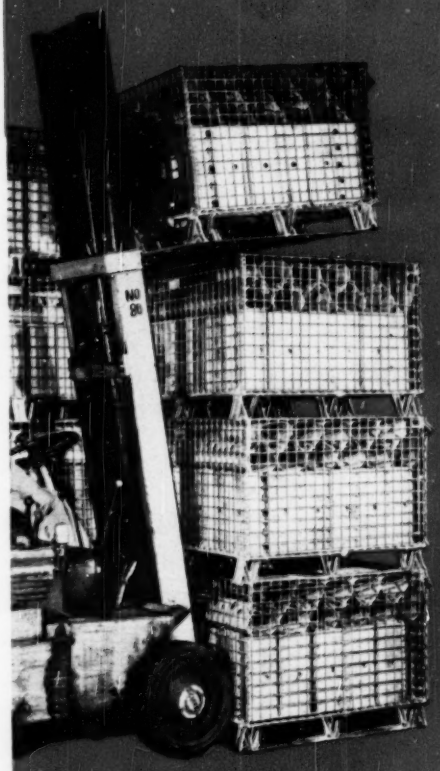

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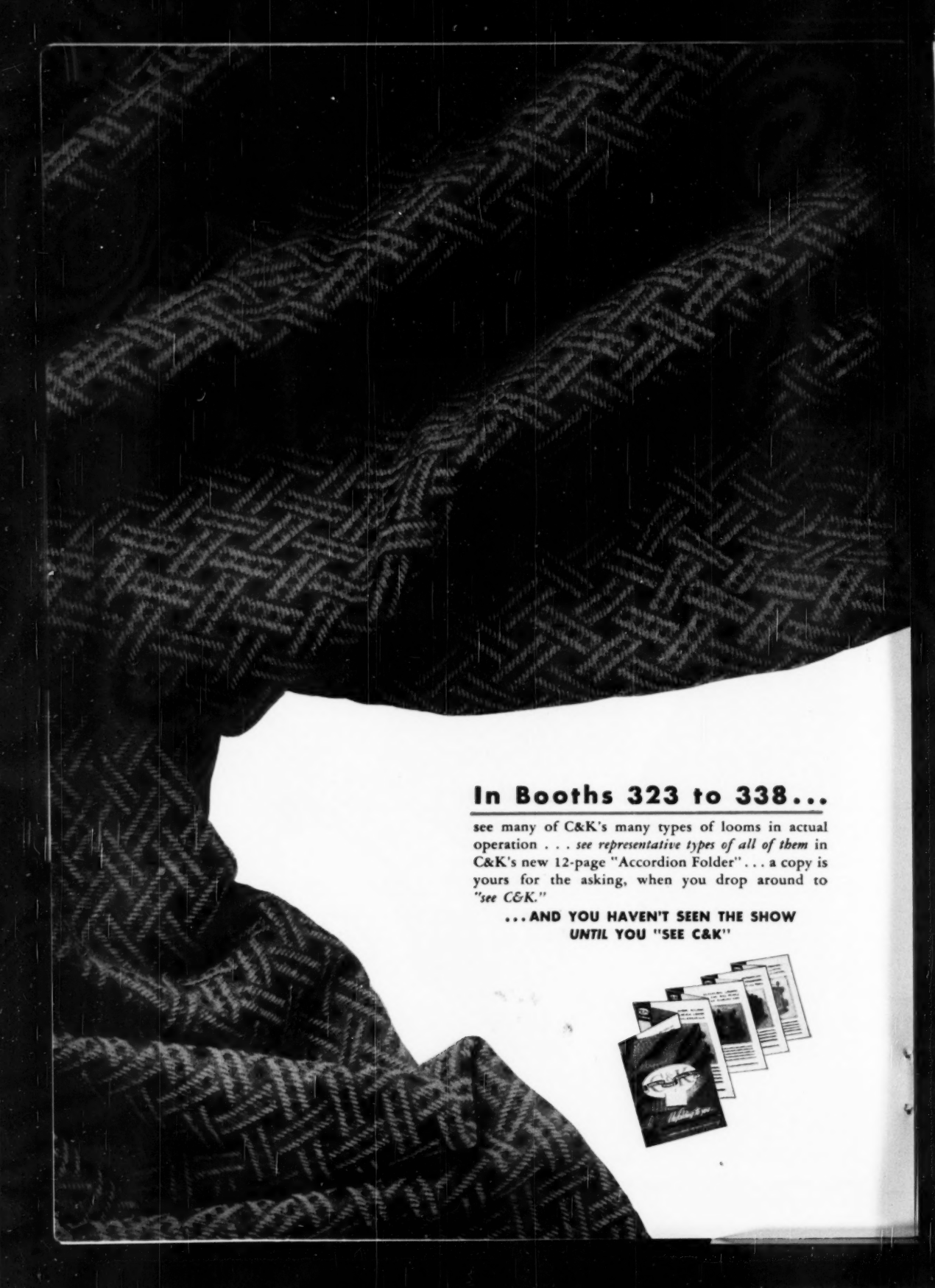

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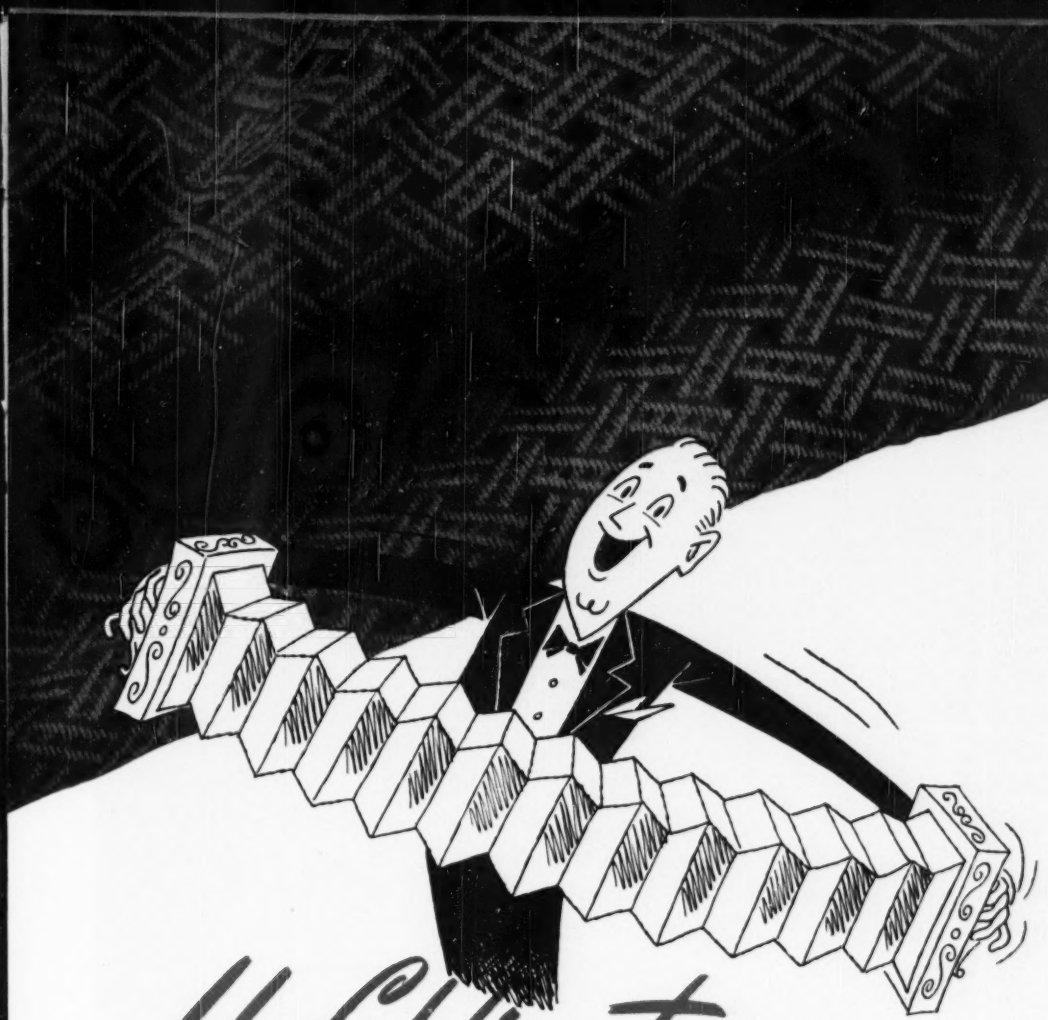

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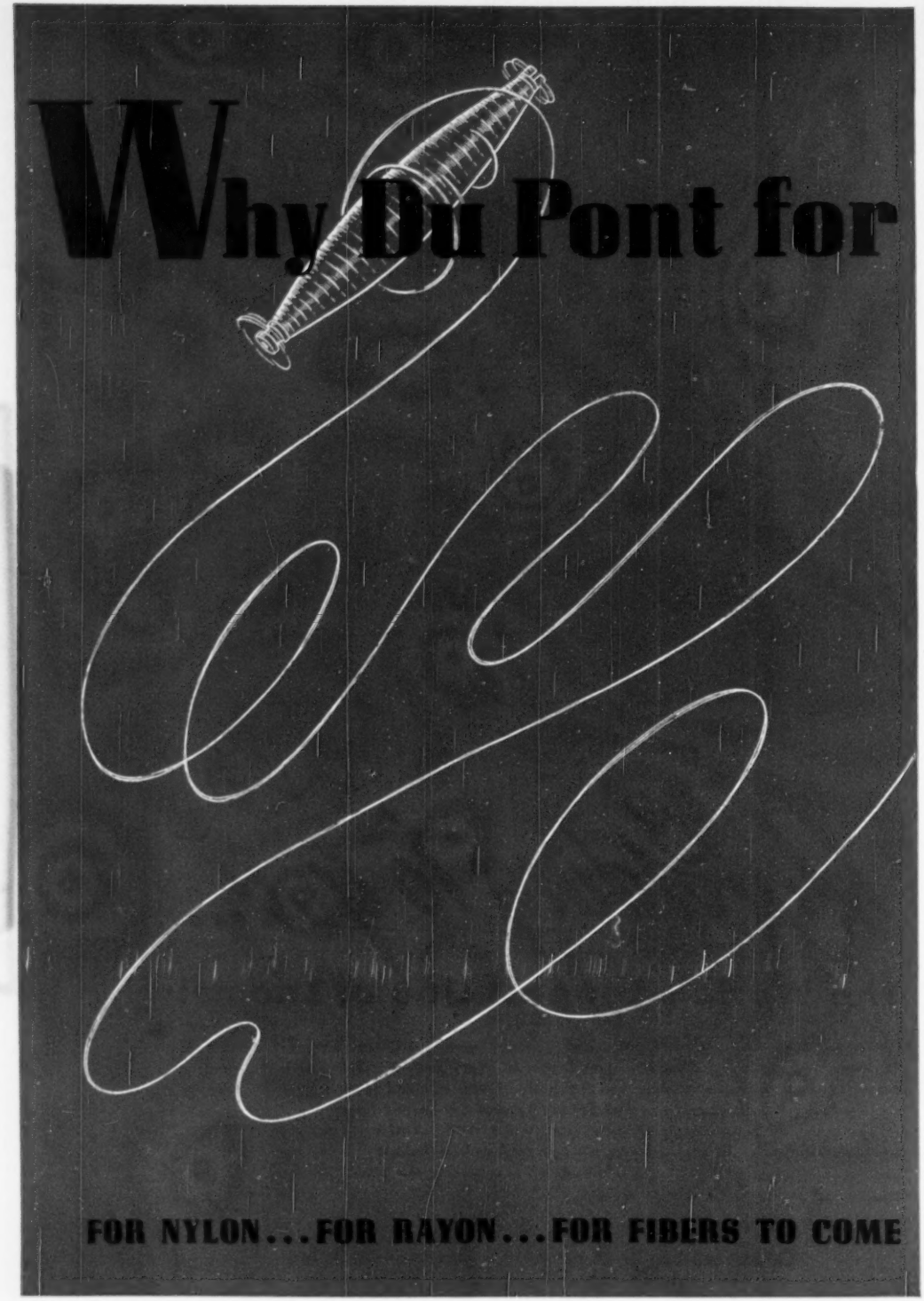
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Exclusive feature of Armstrong's Accotex Cots eliminates a basic cause of top roll laps

Armstrong's Accotex Cots control lapping in your mill by eliminating one of its basic causes —an electrical attraction between cot and fiber. With Accotex®, broken ends tend to be repelled from, rather than adhere to, the cover. Just how this is accomplished is explained briefly in the illustrations and diagrams at the right.

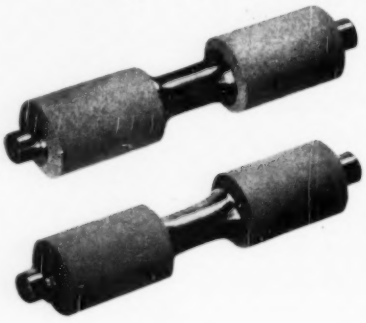
Accotex Cots are also exceptionally durable. They give you an average of 5 to 6 years of front line service with most counts and types of yarn. Normally, the only maintenance that's required with Accotex is an occasional buffing.

Tough Accotex rubber isn't affected by oils, dyes, or commonly used textile solvents. It won't sweat. Nor will it flatten during shutdown periods. It retains its rubbery resilience during years of continuous two- and three-shift service.

Accotex Cots are available in a range of formulations to meet particular requirements. Whether you spin cotton, wool, or synthetics, Armstrong can supply you with a roll cover made especially for your job.

Now is the time to put the lap-resisting long life of Accotex to work for you. A trial installation of the Accotex Cot best suited to operating conditions in your mill can easily be arranged by your Armstrong representative. Call him today or write Armstrong Cork Co., Textile Products Dept., 3604 Arch St., Lancaster, Pa. These cots are available for export.

These two Accotex Cots handle most of your roll covering needs

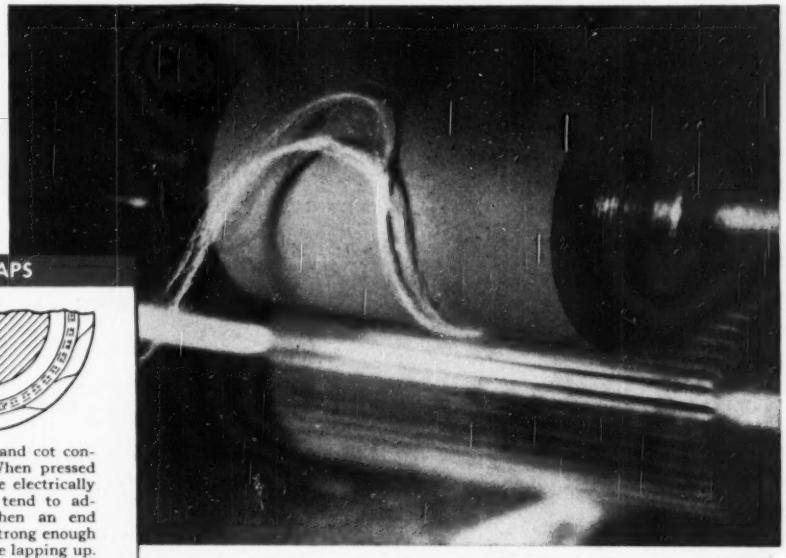


General purpose cover—NC-727 Accotex. Like all Accotex Cots, NC-727 contains electrolytes to reduce lapping. Made of cork-loaded synthetic rubber that combines the superior drafting qualities of cork with the long life of rubber. Designed for maximum eyebrow resistance in a synthetic cot. May be used with flat clearers.

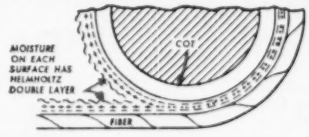
Most lap-resistant cover—J-490 Accotex. Made of a plain synthetic compound especially useful where synthetic fibers are run on cotton system equipment or wherever high lap-resistance is necessary. In addition to containing electrolytes, this cover has added surface smoothness to further resist lapping. For freedom from eyebrows use with revolving clearers.

ARMSTRONG'S ACCOTEX COTS

built-in lap resistance

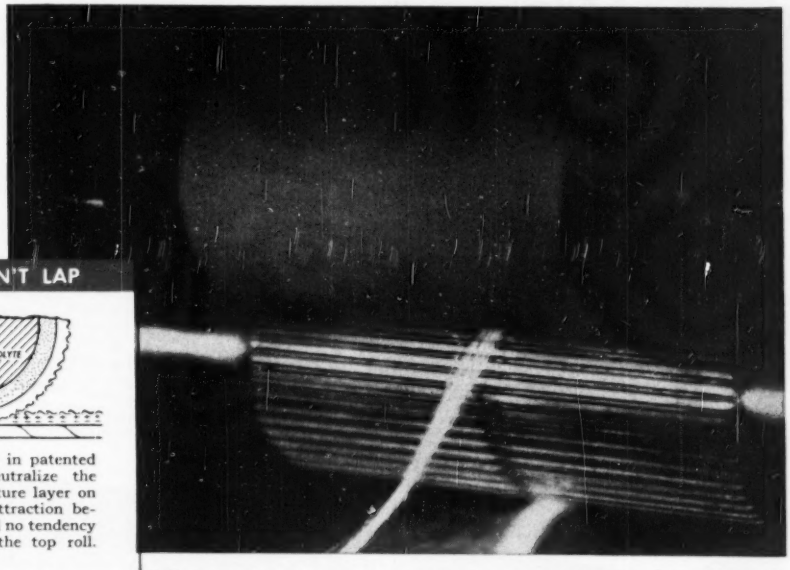


THIS COT LAPS

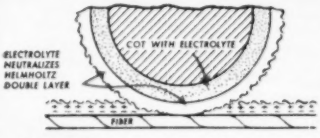


Moisture layers on fiber and cot contain electrical charges. When pressed together in spinning, these electrically charged moisture layers tend to adhere to each other. When an end breaks, this attraction is strong enough to hold the yarn and cause lapping up.

LAPPING UP is caused by surface attraction between cot and fiber.



THIS COT DOESN'T LAP



Electrolytes incorporated in patented Accotex composition neutralize the electrical charge in moisture layer on cot. Thus, there is no attraction between moisture layers and no tendency for fiber to lap up on the top roll.

NO LAPPING occurs when cot covers contain certain electrolytes.

. . . . at the

AMERICAN TEXTILE MACHINERY EXHIBITION

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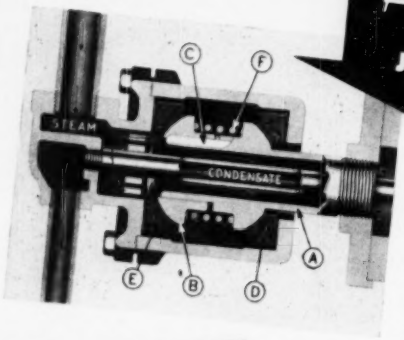
See them in operation at Booths 800-801

JOHNSON *Rotary Pressure* **JOINTS**



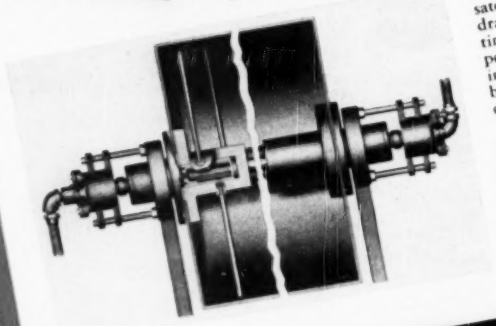
The final touch to fine machinery

Few products of any kind have won the recognition given Johnson Joints by machinery manufacturers themselves. It is practically a unanimous verdict—that any slasher, dry can or sanforizer is better machinery with Johnson Joints.

Cross section view shows its outstanding design. Nipple (A) is connected to can. Sliding collar (B) is keyed to nipple at (C), but fits loosely so pressure can fill entire housing to act as sealing force. Seal ring (D) and bearing ring (E) are of long-lived carbon graphite—eliminate all packing and are completely self-lubricating. Spring (F) is only for initial seating. Note provision for misalignment—the space to allow lateral movement of rotating assembly, spherical seating for angular movement.

JOHNSON *Speed-Heet* **SYSTEM**

Increased production for large slashers



The name itself tells the story. By removing condensate, air and gases more effectively than with bucket drainage, the Speed-Heet System reduces heating up time and permits higher and more uniform roll temperatures. The friction-reducing Johnson Joints, an important part of the system, reduce warp stretch and breakage. Tests in one mill show slasher speed increased from 14½ to 17 yds. per minute.

Illustration shows how the Speed-Heet System provides all the advantages of rotary syphon drainage for large slashers. Steam enters at right; condensate is removed at left. Multiple syphon pipes rotate with the roll. As they become submerged in the condensate, they register successively with a ported opening in the hub. Special portable boring tools are available to permit ready installation of the Speed-Heet System on existing slashers.

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The dyer for having selected dyestuffs having the proper fastness for the expected wear conditions.

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ACID LIGHT SCARLET GL

XYLENE FAST YELLOW 2GP

BRILLIANT ALIZARINE LIGHT VIOLET FFR

BRILLIANT ALIZARINE MILLING BLUE BL

ALIZARINE LIGHT BROWN BL

And for any chrome, acid or direct dyes... or auxiliary chemicals... and for both natural and synthetic fibres ...be guided by the successful "color achievements" you see in these Sandoz advertisements.

SHRINKPROOFING WOOLENS?

For latest information on proper choice of dyestuffs for chlorinated materials, address nearest Sandoz office, requesting Booklet U. S. 129: "Dyestuffs for Chlorinated Materials and Their Fastness to Washing, Light and Perspiration."

SANDOZ CHEMICAL WORKS, INC., 61 VAN DAM STREET, NEW YORK 13, N. Y.

Application laboratories and stocks at Boston, Philadelphia, Charlotte, Chicago, Los Angeles, Toronto • Other branches at Providence, Paterson and Montreal

SANDOZ *thinks ahead with textiles*

Through the years . . .

Atwood Skein Winding
Atwood Up-Twisting
Universal Self-Supporting Package Winder
No. 50 Precision Winder
No. 90 Filling Bobbin Winder
Atwood Doubling-Twisting with Automatic Stop Motion
No. 60 High Speed Doubling
Roto-Coner* Rotary Traverse Winding
Universal Pineapple Coning
Universal Bobbin Spool Attachment
No. 250B Nylon Sizing

and now . . . an

Invitation

TO VIEW THE NEWEST ACHIEVEMENTS IN WINDING AND TWISTING

As you know, the American Textile Machinery Exhibition will take place in Atlantic City, May 8 to 12, under the auspices of the National Association of Textile Machinery Manufacturers.

There you will see, among the important exhibits of hundreds of textile machinery manufacturers, a demonstration of the most recent developments of Universal Winding Company.

Generations of mill men have seen great developments in winding and twisting machinery come from the drawing-boards of Universal and Atwood engineers. None, we believe, could have been of more interest than those which we intend to reveal at the coming Exhibition.

Our booth numbers are 165 to 179, inclusive, and (across the corridor) 276 and 288. We hope you'll visit us there. Look for the revolving "Universal Man."

AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

More than any other, perhaps, the textile industry is in a constant state of evolution. Never before at one time, however, has news of such great importance been revealed by the various machinery manufacturers.

We urge you to attend . . . invite you to visit our exhibits . . . and caution you to make your reservations *now*.

*Reg. U. S. Pat. Off.

LEESONA®

ATWOOD®

UNIVERSAL WINDING COMPANY

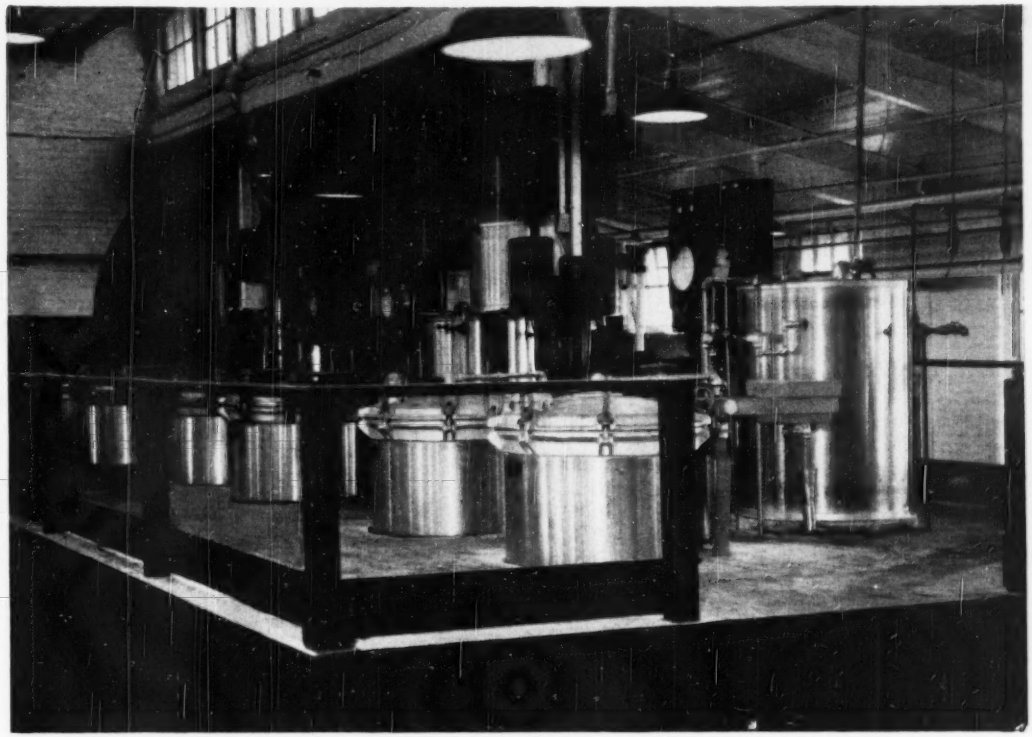
P. O. Box 1605 • Providence 1, R. I.

Boston, Philadelphia, Utica, Charlotte, Atlanta, Chicago, Los Angeles; Montreal, Hamilton, Canada; Manchester, England; Paris, France; Basle, Switzerland

Agents in every principal textile center throughout the world

Winding and Twisting Machinery for Natural and Synthetic Yarns

MACHINES THAT *"THINK"* FOR YOU



IN TERMS OF *GREATER PROFIT!*

Automatically — with the barest minimum of skilled help — Gaston County's Combination Beam and Package Dyeing Machines take wasteful guesswork out of dyeing.

You get surer quality, *more economy,* with Gaston County's modern control features: automatic temperature controls — automatic dye liquor flow reversing mechanisms — patented two-way running wash system—and dye liquor flow controls. The new Robot DYEMASTER gives you permanent records for matching colors quickly and perfectly.

You can dye beams, cones, roving, springs, tubes, and cheeses — in the Combination Beam and Package Dyeing Machine with a simple change of carriers.

Let us supply the machine that *exactly* fills your requirements. We build extractors, dryers . . . package, raw stock, and sample dyeing machines . . . single or multiple-kier set-ups, ranging from 1 to 2,000 pound units, all built with Gaston County's money-saving automatic controls.

WRITE FOR COMPLETE INFORMATION

PIONEERS IN AUTOMATICALLY GASTON COUNTY *CONTROLLED DYEING MACHINES*

GASTON COUNTY DYEING MACHINE CO.

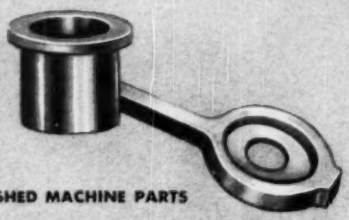
STANLEY, N. C.

Albert R. Breen
80 East Jackson Blvd.
Chicago, Ill.

Gaston County Dyeing Machine Co.
Terminal Building, 68 Hudson St.
Hoboken, N. J., G. Lindner, Mgr.

The Rudel Machine Co., Ltd.
614 St. James St., W. Montreal
137 Wellington St., W. Toronto

QUALITY



OIL-CUSHIONED BEARINGS

FINISHED MACHINE PARTS

★ 20 years of production experience.
★ New plant and equipment.
★ Virgin materials of highest purity.
★ Recognized management and technical personnel.
★ Electronic inspection devices and quality control.

SERVICE

★ Extensive staff of home office and field engineers.
★ Batteries of presses and other equipment for quick service.
★ Production tools for more than 25,000 different finished products.
★ 3000 additional engineers for consultation on technical problems.
★ Depots in every state and throughout Canada for on the spot service.

PERMANENT FILTERS

CORED AND BAR STOCK

OILITE

AMPLEX MANUFACTURING COMPANY

SUBSIDIARY OF CHRYSLER CORPORATION

DETROIT 31, MICHIGAN

CONTACT OUR LOCAL FIELD ENGINEER OR HOME OFFICE

plant behind World's Finest Shuttles

Mills throughout the civilized world have long recognized the outstanding quality and workmanship of famous Southern Shuttles.

Shuttle experts with long years of mill experience and the most modern of machinery partly explain the high quality standards of Southern Shuttles manufacture. The complete control from dogwood timber to final shuttle inspection, all in the hands of Southern Shuttles tells the balance of our leadership story.

Southern Shuttles controls its own dogwood. It seasons and shapes the billets. Experts handle each and every step of manufacture and it's all done in the world's finest air-conditioned and humidity controlled shuttle plant.

Let our representative tell you why Southern Shuttles "Weave the World's Needs."

TEMPERED
TRADE MARK REG.

108 SERIES EYE
Give a complete variety of perfectly precisioned Southern Shuttles Eyes.

See us at the
AMERICAN TEXTILE MACHINERY EXHIBITION
Atlantic City, May 8th to 12th
Booths 365AA-376AA

SOUTHERN SHUTTLES

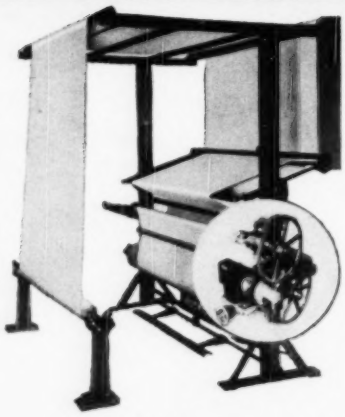
PARIS PLANT... GREENVILLE, S. C.
A Division of STEEL HEDDLE MFG. CO.

2-K-2

"Standard" TEXTILE EQUIPMENT

Water Seal Yarn Steamer

Hand Cloth Perch and Measuring Cylinder



Standard Cloth Inspecting, Measuring and Winding Machine with Fluorescent Lighting Fixture.

LABORATORY EQUIPMENT

Hand Card Winder

Yarn Evenness Controller

Hand operated with 5 speeds that control yarn spacing. Has adjustable tension stand and supply attachment for bobbins or cones.

Umbrella Reel

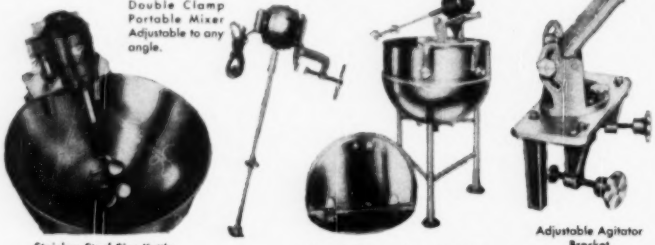
36" Roving Reel with Productimeter Yardage Counter.

36" or 54" Yarn Reel

Hand operated, equipped with Productimeter. Traverse is adjustable and produces 4 skeins in one operation.

SIZE KETTLES and MIXERS

Double Clamp Portable Mixer Adjustable to any angle.

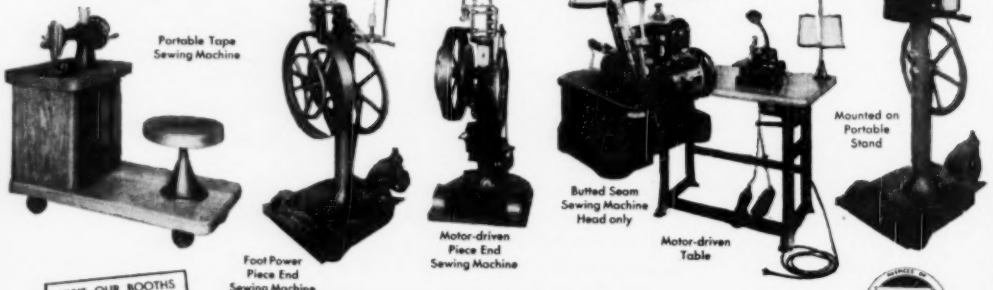


Stainless Steel Size Kettle, with Agitator adjustable to any position.

Size Kettle, complete with Cover, Motor and adjustable Agitator.

Adjustable Agitator Bracket

SEWING MACHINES



Portable Tape Sewing Machine

Foot Power Piece End Sewing Machine

Motor-driven Piece End Sewing Machine

Butted Seam Sewing Machine Head only

Motor-driven Table

Mounted on Portable Stand

VISIT OUR BOOTHS 51 – 52 – 53, at the American Textile Machinery Exhibition

For Complete Details on any item, Send for descriptive folder.

STANDARD MILL SUPPLY

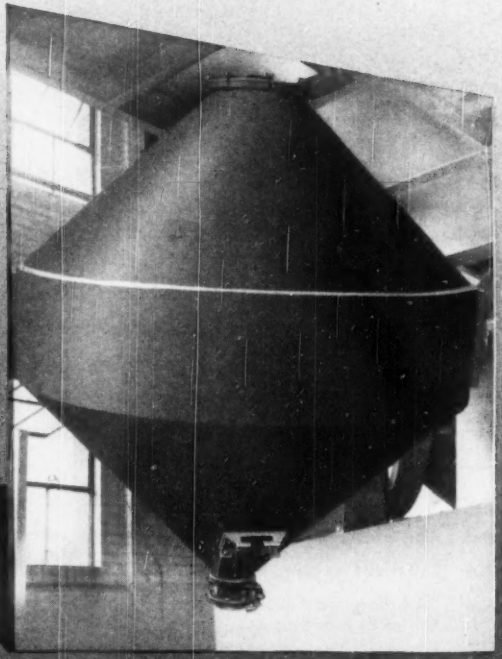
PAWTUCKET, R. I. 1064-1080 Main Street

NEW YORK, N. Y. 6708 Empire State Bldg.

CHARLOTTE, N. C. 513 So. Tryon Street

the BIGGER the blender

the BETTER the uniformity



These powerful, Giant Blenders were built to comply with our specifications for rigid control, to give you a superior product. They make possible more uniformity in standardization of the dye as manufactured.

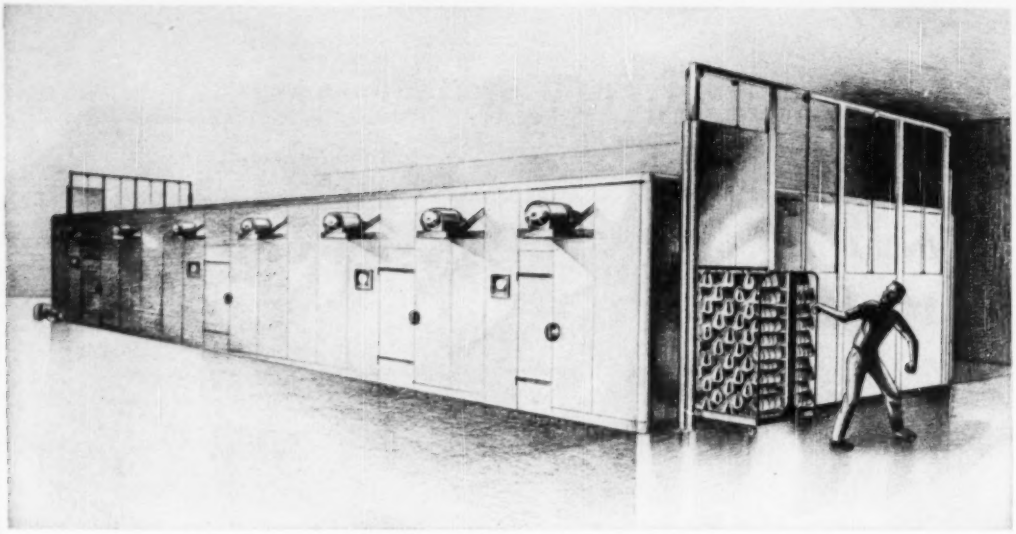
As a result, we can always standardize ALTCO colors more uniformly than with usual equipment, thanks to our more modern methods of Dye-Making.

ALTCO

Chemical Company, Inc.

READING · PA.

Precaution in precision dye-making



New "NATIONAL" *High Speed* RAYON CAKE DRYER

A machine that establishes superior standards for efficiency and economy in the drying of rayon cakes. New features involving air diffusion and control assure higher drying speeds, closer uniformity, increased production and greatly improved drying quality.

Vertical air circulation is employed, which, by means of specially designed axial flow fans and air controls above and below the trucks, can be *periodically reversed*—alternating up and down through the cakes. This is a completely automatic operation. The result is to *greatly reduce the required drying time*—an important factor in quality improvement and savings in production costs.

The "NATIONAL" Rayon Cake Dryer may be either batch or continuous tunnel type, the latter any number of lanes in width. Standard unit construction allows for future expansion. Doors can be arranged to meet plant or processing conditions—vertical lift, horizontal slide, etc.

Several methods of mounting poles in trucks may be used, including half-poles permanently fixed to vertical center member, permitting simultaneous loading from both sides of the truck.

AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12 1950

Write for Further Information

★ ★ ★

Participating in the American Textile Machinery Exhibition, Atlantic City, May 8-12, Sections 33 and 34.

THE NATIONAL DRYING MACHINERY COMPANY

LEHIGH AVENUE AND HANCOCK STREET • PHILADELPHIA 33 • PENNA.

New England Agent: INGALLS ENGINEERING CO., Providence, R. I. Southern Agent: F. W. WARRINGTON, Charlotte, N. C.

Cable Address—"NADRYMA"—W. U. Code

DRYING AND CONDITIONING MACHINERY FOR TEXTILES, CHEMICALS, PHARMACEUTICALS, CERAMICS, FOODS AND OTHER PRODUCTS

NOPCO* 1656-R

THE ONE

Worsted Lubricant That ELIMINATES STATIC

Application: Top or Pin Drafter

Write for Details

NOPCO EVOLVED THRU RESEARCH

NOPCO CHEMICAL COMPANY

Formerly National Oil Products Company

HARRISON, NEW JERSEY

Branches: Boston • Chicago • Cedartown, Ga. • Richmond, Calif.

*T. M. Reg. U. S. Pat. Off.

Sleeve bearings are not damaged by microscopic particles in the air or the lubricant. Bunting Bearings should be handled with care and cleanliness, but do not require the observance of surgical standards for their successful use. Bunting Engineers are prepared to assist in designing new installations. The Bunting Brass & Bronze Company, Toledo 9, Ohio. Branches in Principal Cities.

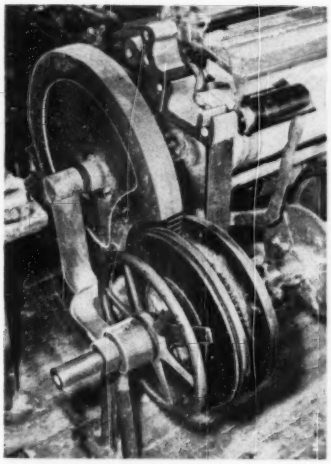
Bunting

BRONZE BEARINGS ☆ BUSHINGS ☆ PRECISION BRONZE BARS

60

Two Slasher Improvements

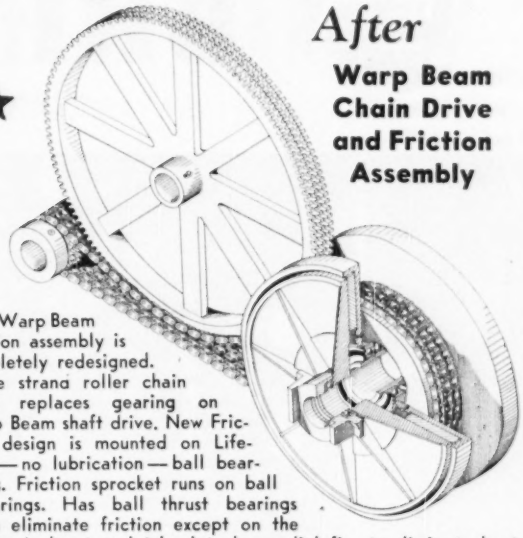
Before



Old style Warp Beam Friction assembly was noisy, tended to overheat, required considerable maintenance and upkeep. These operating characteristics indicated relative inefficiency.

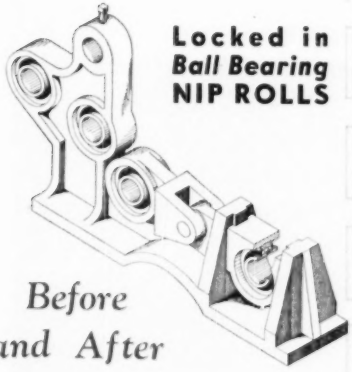
After

Warp Beam Chain Drive and Friction Assembly



New Warp Beam Friction assembly is completely redesigned. Triple strand roller chain drive replaces gearing on Warp Beam shaft drive. New Friction design is mounted on Lifetime — no lubrication — ball bearings. Friction sprocket runs on ball bearings. Has ball thrust bearings which eliminate friction except on the clutch. And outer clutch plate has radial fins to dissipate heat. RESULTS: Greater efficiency is indicated by much quieter, smoother operation, longer life, less maintenance and reduction in Friction heat. A PGM Drive-Engineered and Tested!

ENGINEERED A PGM DRIVE TESTED



Locked in *Ball Bearing* NIP ROLLS

Before and After

New Nip Roll assembly, with ball bearings, replaces outmoded cast iron plain bearings. Lifetime sealed ball bearings, with our exclusive individual brackets, are locked to the shafts. Hence, the shafts roll only on balls, with no replacing or reworking of shafts and main housing.

RESULTS: All shafts operate smoothly on friction-free, sealed-in ball bearings, requiring no maintenance or lubrication. Jerking or binding of shafts is eliminated. A PGM Product—Engineered and Tested!

Our Chief Engineer's report will be sent you on request!

The small cost and higher efficiency of these Slasher improvements point out the wisdom of installing them on your Slashers—before you spend further money on upkeep and maintenance or loss on work stoppage. The practical Mill man knows that "Since they are PRECISION Products, they have been engineered and tested" and that PRECISION has the technical knowledge and facilities that take out "trial and error" uncertainties. Leading mills are hastening to install these cost saving Slasher improvements. Before you spend further on the OLD, investigate the NEW. Write or call for our Chief Engineer's report, now. Phone Charlotte 4-6857.

• • • • •

PRECISION Slasher Improvements include: Warp Beam Friction Assembly: Nip Roll Bearing Assembly: Size Roll Ball Bearings: Creel Stand Ball Bearing Units: Special needs worked out on request.

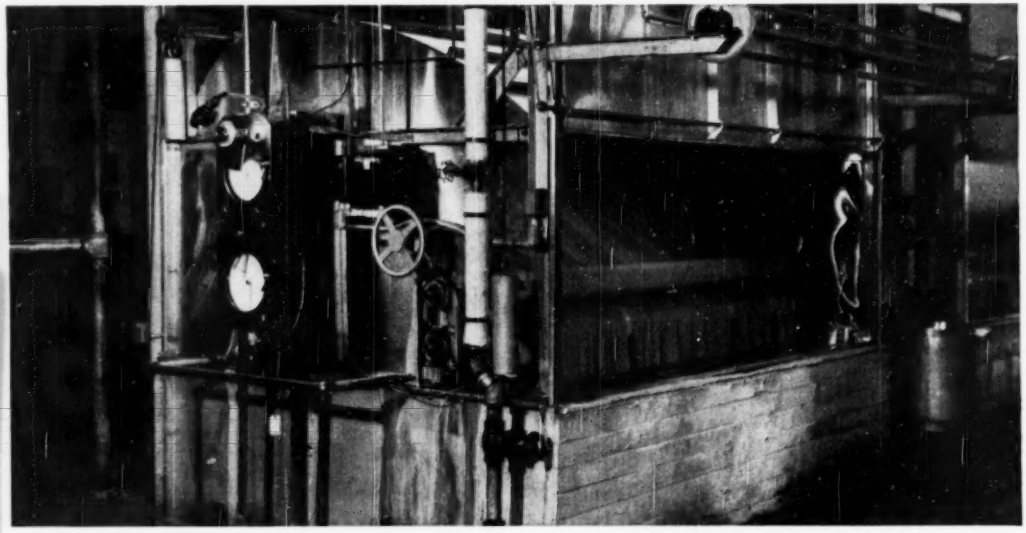
THE SOUTH'S LARGEST MAKERS OF GEARS AND CHAIN DRIVES

PRECISION
GEAR AND MACHINE COMPANY
DIVISION OF TURNER MANUFACTURING CO.

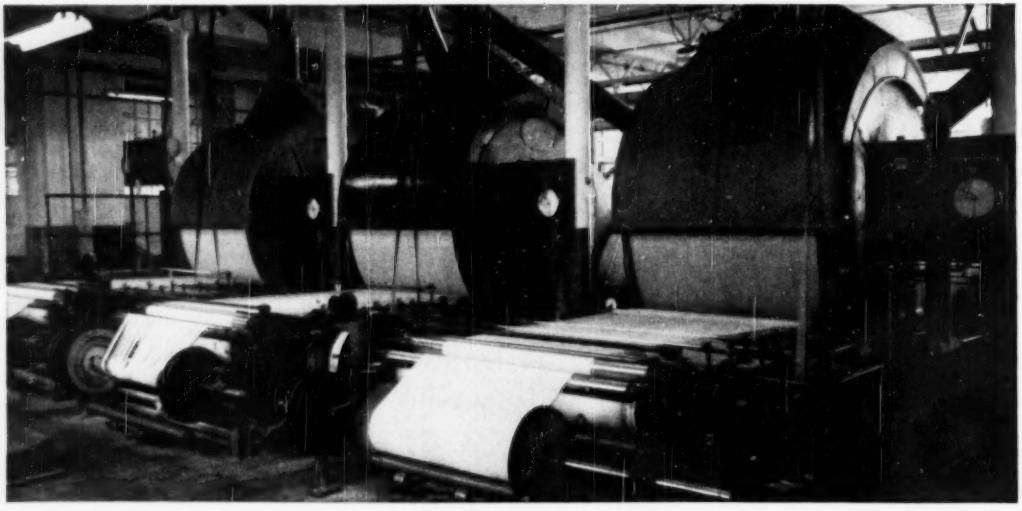
2001 North Tryon Street CHARLOTTE, NORTH CAROLINA, U.S.A.

AUSPICES OF
AMERICAN TEXTILE MACHINERY EXHIBITION
ATLANTIC CITY
MAY 8-12, 1950
TEXTILE MACHINERY MANUFACTURERS' ASSOCIATION

BRING YOUR



PROBLEMS LIKE accurate dye kettle control. Here you see the brand new, completely flexible Taylor Time Schedule Temperature Controllers on a piece dye kettle at the Perry Knitting Company, Perry, N. Y.



PROBLEMS LIKE complete slasher control. Here, at the Utica and Mohawk Mills, Utica, N. Y., Taylor Automatic Slasher Control Systems are maintaining correct size box level, and temperatures, and drying cylinder temperatures.

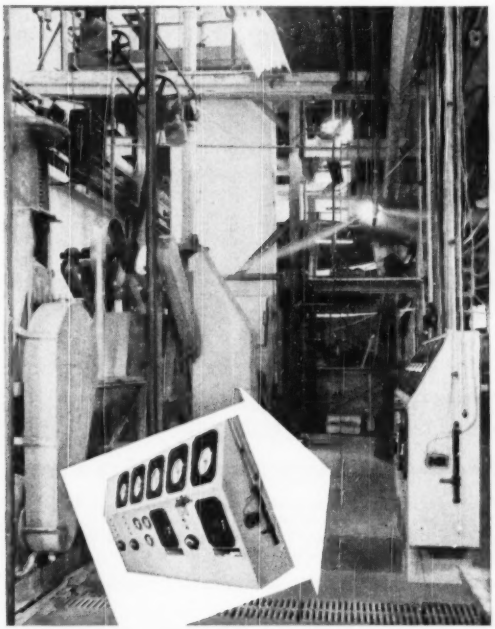
PROBLEMS TO the TEXTILE SHOW

Let Taylor help you solve them

Booths 551, 552 and 553 are where you can find the solution to practically any processing problem you have involving accurate measurement or control.

Taylor has been serving the textile industry for thirty years. Having grown up with the industry, we can now offer you instrumentation that will save you money on practically any application in your mill from the first phase of processing to the last. For example: ***size cooking, size storage kettle, slashing, kier bleaching, continuous bleaching, tentering, piece dyeing, package dyeing, beam dyeing, finishing, mercerizing, skein dyeing, top dyeing, jig dyeing, wool scouring, continuous dyeing, drying, carbonizing, washing, continuous crabbing, padding, decating, power plant, air conditioning, and cake soaking and drying.***

See you at the Show! Taylor Instrument Companies, Rochester, N. Y., and Toronto, Canada.



PROBLEMS LIKE continuous bleaching control. Right, above, you see the control panel for the completely automatic Taylor Continuous Bleaching Control system that's cutting costs for a large eastern mill.

Instruments for indicating, recording and controlling temperature, pressure, humidity, flow and liquid level.

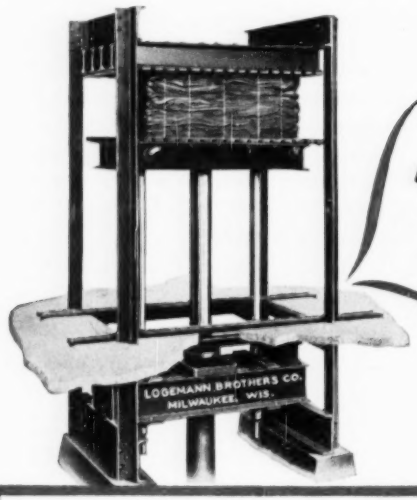
Taylor Instruments
MEAN
ACCURACY FIRST
IN HOME AND INDUSTRY

MAKE YOUR BALING A *Profitable* OPERATION *with a* LOGEMANN BALER

Tell Us Your Baling Problems

THAT'S the best way to get the right answers to low-cost time-saving baling. During our sixty years of building balers for the textile industry we've solved many a baling problem for factory owners. Our engineers know how to make baling operations pay their own way in time and labor-savings, in speedier, more reliable handling of bales, in lower maintenance costs. Many Logemann balers have been in profitable operation since the turn of the century—evidence of the ruggedness, durability, and long service life of Logemann baling presses.

In the interests of better baling operations in your factory, find out what Logemann balers can do for you. Tell us what your specific problem is. We'll gladly show you how it can be answered in terms of better bales at lower costs and make a specific recommendation based on your requirements. Write for information today.



LOGEMANN BALING PRESSES

Open balers for finished goods may be hydraulic or power-driven. Give platen dimensions required, maximum height of pile to be compressed, number of bales per hour, when requesting information on open balers.

Box balers for waste may be obtained in either the hydraulic or power-driven type. Mention the kind of waste to be baled, how much in how many hours, the preferred size or weight of bale when inquiring about box balers.

LOGEMANN BROTHERS CO.

3100 West Burleigh Street • • • Milwaukee 10, Wisconsin

Warmth Characteristics of Rayon Being Utilized by Clothing Industry

The trend to rayon fabrics for year-round wear emphasizes a shift in the general attitude toward thermal characteristics of fabrics. Since its early days rayon has largely been regarded as a "cool" fiber. Objective examination of the subject indicates that this impression probably had its origin in the type of fabric constructions for which rayon was first used.

For many years rayon's principal uses were in lingerie and lightweight dress goods. As a result, it did not acquire a reputation for warmth. This attitude has been reinforced in recent years by the widespread popularity of rayon in open weaves for cool summer suitings.

New developments have now made it possible to exploit the economy and wearing qualities of rayon in constructions that provide high insulating values. This move to constructions designed for cold weather apparel is already proving successful. According to the clothing industry, laboratory tests and the experience of people who have worn these fabrics demonstrate their comfort, wearability and economy.

The news that rayon offers many advantages for year-round wear deserves widespread dissemination. To serve this objective, Avisco is releasing information about the warmth of rayon to both the consumer and trade press. This program should help broaden the market for rayon fabrics and benefit the textile industry.

"How much air are you wearing?" is the provocative headline for this Avisco-sponsored advertisement dealing with the problem of warmth in clothing.

RAYON 20 YEARS AGO

NEW YORK, April, 1930—Mixtures of rayon and cotton are being used with outstanding success in the manufacture of raincoats.

NEW YORK, April, 1930—Marked improvement in the demand for rayon swimming suits is a feature of the knit goods market.

NEW YORK, April, 1930—The farmer's daughter is dressing as well as her city sister, thanks to rayon garments sold by the mail order houses.

MAKE USE OF *Avisco* 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 FIBER RESEARCH
2 FABRIC DESIGN
3 FABRIC PRODUCTION
4 FABRIC FINISHING

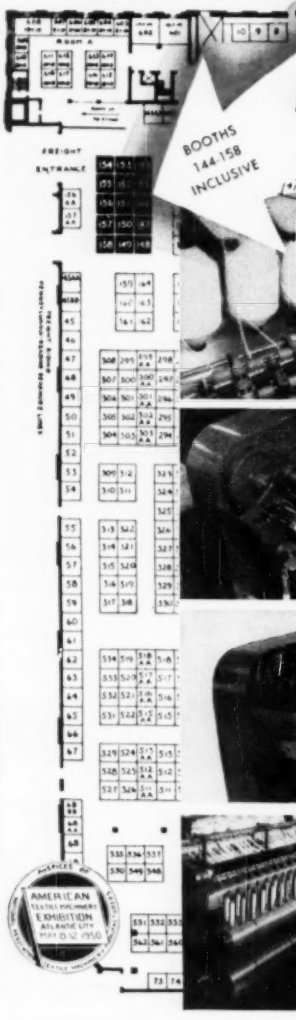
AMERICAN VISCOSE CORPORATION

America's largest producer of rayon

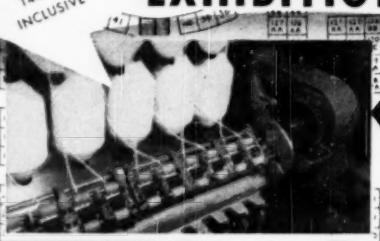
Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

Let them all see

H & B's Latest Developments AT THE AMERICAN TEXTILE MACHINERY EXHIBITION — MAY 8th to 12th

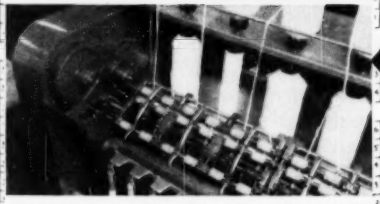


THESE DEVELOPMENTS WILL INCLUDE:



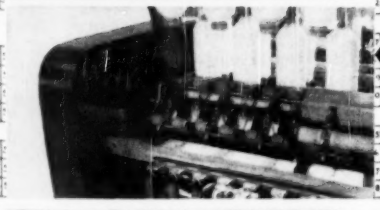
H & B CASABLANCAS SUPER HIGH-DRAFT SYSTEM

A 3-roll system with a set of double aprons. Features newly designed cap bars, weighting of roller stands, cradles and tensors. Adjustable roll settings and a better control of apron travel produce yarn of high quality in evenness and strength. Warp yarns from a single roving in the creel are possible. Highly flexible drafting range from 24"—50". Handles fiber lengths up to 2".



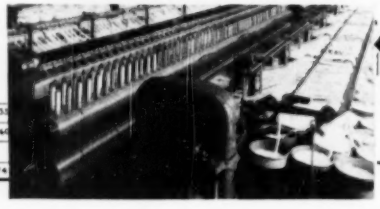
H & B CASABLANCAS FOUR-ROLL HIGH-DRAFT SYSTEM

Designed for finer count yarns, yet can also handle lower counts. 4-roller arrangement with double apron between the first two lines and with condenser directly in back of double apron permits 3 distinct drafting zones for drafts as high as 80" with certain lengths. Equipped with extra flexible saddles and spring weighting of a new design.



H&B CASABLANCAS 5-3 SYSTEM

For synthetics and blends or any fiber from 1" to 3". Three-roll system with double apron between first two lines. Features spring weighting, new type saddle and a cradle design with interchangeable platforms. Changeover from spinning one staple length to another made in a few minutes, without changing cradles, belts or roll settings. Drafting range 14"—40" with complete fiber control.



H & B FIVE-ROLL 10 x 5 HIGH-DRAFT SLUBBER

In full operation this machine will demonstrate how high draft in the Card Room cuts cost by eliminating from one to three operations.

The H & B Exhibit will be in booths 144 to 158, inclusive. You can't miss it — the last block at the further end of the main hall, to the left of the stage.

H & B Headquarters at Atlantic City, during off-hours, will be at the Breakers Hotel.

H&B AMERICAN MACHINE CO.

Builders of Modern Textile Machinery

FACTORY, EXECUTIVE OFFICES AND EXPORT DIVISION • PAWTUCKET, R. I., U.S.A.

BRANCH OFFICES: Atlanta, Ga. — 815 Citizens and Southern National Bank Bldg.; Charlotte, N. C. — 1201 Johnston Bldg.

SR Type Ball and Roller Bearing Pulley
W-2493 Type Ball Bearing Pulley
Spindle with Cylindrical-Type Bolster
Spindle with Oil-Cushioned-Ring-Brake Type Bolster

At the convention visit booths no. 465-466 conveniently located on the center aisle

AUSPICES OF AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950 TEXTILE MACHINERY MANUFACTURERS' ASSOCIATION

Want trouble-free pulleys? . . . more efficient spindles?

SKF PIONEERED BOTH!

SKF Tension Pulleys and SKF-equipped Roller Bearing Spindles have earned their reputation for high efficiency . . . full dependability . . . lasting economy. That's only natural . . . for SKF designs and manufactures them to meet exactly the most rigid requirements of the textile industry. SKF supplies two types of Tension Pulleys: SKF Tension Pulley Type SR is specially designed for use in new installations or wherever new brackets are required. SKF Type W-2493 is designed for instant replacement of plain bearing pulleys without changing brackets. SKF-equipped Roller Bearing Spindles permit power savings up to 15% and the use of smaller motors and starting equipment . . . assure more uniform twist. The advice of SKF Engineers on Pulley and Spindle problems is sound. It can do much to help you lower operating costs and increase the salability of your product.

SKF Industries, Inc., Philadelphia 32, Pa., *the Pioneers of the Deep Groove Ball Bearing—Spherical Roller Bearing—Self-Aligning Ball Bearing.*

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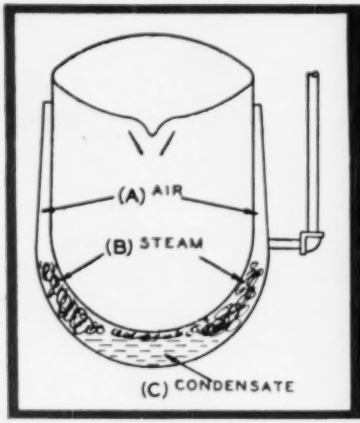
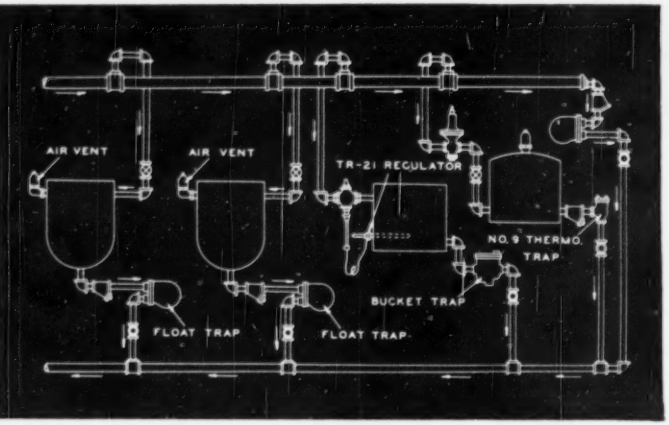
SKF
BALL AND ROLLER BEARINGS

8 REASONS WHY SKF IS PREFERRED BY ALL INDUSTRY

INTEGRITY · CRAFTSMANSHIP · METALLURGY · TOLERANCE CONTROL · SURFACE FINISH · PRODUCT UNIFORMITY · ENGINEERING SERVICE · FIELD SERVICE





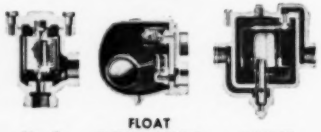
GOOD STEAM PRACTICE

Simple as A B C

A. Air and other gases in steam lines or equipment not only reduce the effective temperature of the steam, but create insulated cold spots wherever there is an accumulation. These gases are constantly generated in the boiler and air is always present when starting up. Ask for Bulletin No. 275 (Air in Steam).

B. Dry steam can be delivered at the point of use only by trapping condensate from mains, risers, coils, etc. The amount of steam and therefore the temperature of the room, process, press, tank or oven, can be controlled to within a degree or two by selecting suitable Sarco Temperature Controls.

C. The speed of the work can be maintained and fuel efficiency insured at top level by removing condensate with the right Sarco Steam Trap based on calculations and recommendations given in Sarco Bulletin No. 1600.



No. 9 — FLOAT THERMOSTATIC — BUCKET

ASK THE SARCO MAN TO APPLY "ABC" TO YOUR PLANT

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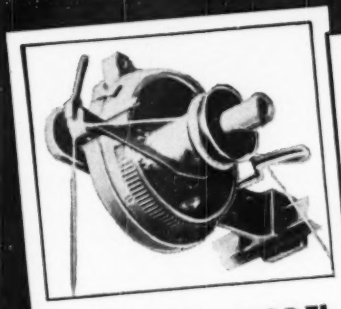
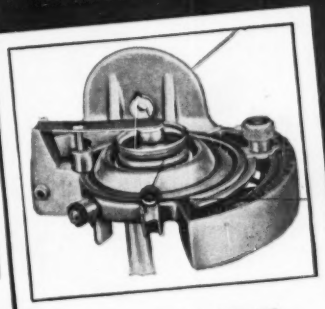
What are YOUR Tension Problems?



STANDARD MODEL

TWIN DISC MODEL



WARP MODEL

SEE Kidde

SPECIALISTS IN TEXTILE TENSIONS

Kidde Tension Compensators are precision devices that take the variables out of yarn tensioning. The Standard Model, which has proved the theory of tension compensators in many large plants, is designed for average speeds and tensions. The Twin Disc Model is especially useful for extreme speeds and tender yarns—passes knots at high speed. The Warp Model is small and inexpensive enough for warp beams—gives uniform beam tension, eliminates over-stressed yarns, prevents buckling of warp beam.

Whatever your tension problems, let Kidde help you find the answer.

Walter Kidde & Company, Inc., 490 Main Street, Belleville 9, N. J.
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Gentlemen:
Send me information on Tension Control for your type of application.....

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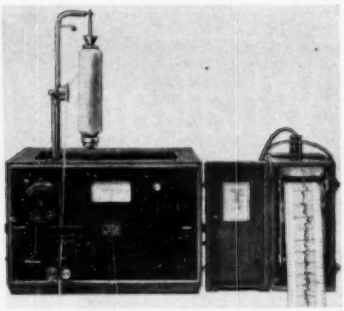
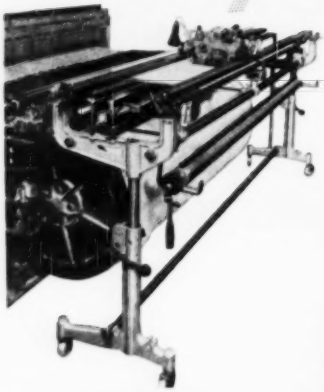
Cut your Costs with USTER Equipment



"Uster" Evenness Tester

The standard by which yarns are made, bought, and sold. Handles sliver, wool tops, roving, and yarns. Request Booklet #102 for details.



"Little Uster" Warp Tying Machine

Saves 30% to 70% in tying time on any material. Ties portable or stationary. Ties up to 118 inch warps at one "bite". Incomparably fast, efficient, and versatile. Request Booklet #72 for details.

"Turicum" Reaching-In Machine

Saves labor and increases output. Simplifies the entire drawing-in operation. Request Booklet #7 for details.

In Canada:
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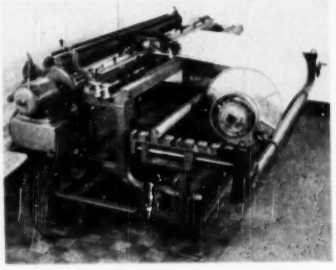
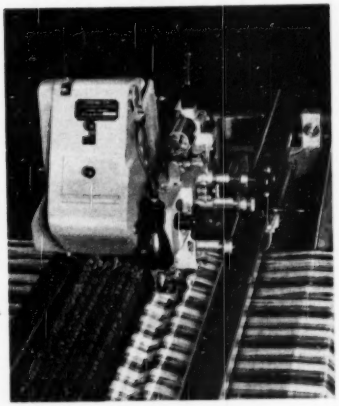


Gentsch Warp Leasing Machine

Automatically puts an "end-and-end" lease in warps at the rate of 12,000 ends per hour. Requires only a few minutes to load and unload. Request Booklet #12 for details.



"Uster" Dropper

Automatically pins up to 18,000 open drop wires per hour—10 to 20 times faster than hand-pinning. The "Uster" Dropper shortens and simplifies tremendously the entire pinning process—saving hours of loom down-time. Request Booklet #47 for details.

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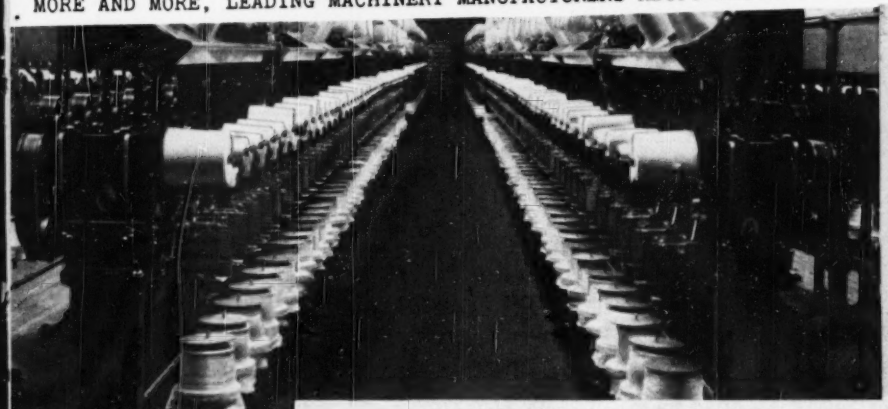

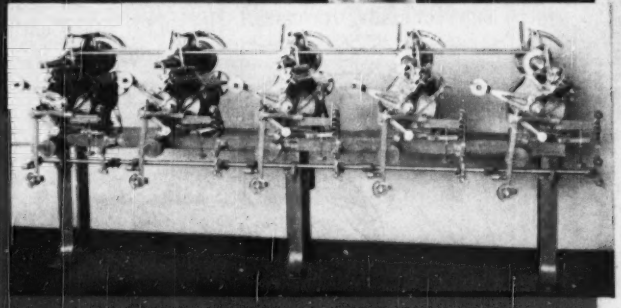

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UNIVERSAL WINDING COMPANY *standardizes on* ALSIMAG® THREAD GUIDES AT POINTS OF GREATEST WEAR

AlSiMag Thread Guides have proven so long lived and so economical at points of greatest wear that Universal Winding Company has adopted them as standard equipment for the parts illustrated at the right.

Universal has used these guides for many years where specified by their customers. Mill after mill has demonstrated by its cost records that AlSiMag Thread Guides give lowest cost per lb. of yarn produced.

AlSiMag Thread Guides are hard, homogeneous. They are uniform physically and dimensionally. They are custom made for any requirement. Handmade test samples for your special requirements can be made promptly and at reasonable cost. You can try out your ideas on guides quickly and at little cost. Engineering assistance available on request. Many mills have made important savings with AlSiMag guides custom made for their special requirements. Why not try them in your mill?

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Universal Winding Company, Providence 1, R. I., carries these guides in stock for immediate shipment. The same guides may be ordered from American Lava Corporation, Chattanooga 5, Tennessee, for shipment after normal production intervals.

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Universal Guide No. 45-179-15
AlSiMag Guide No. GE-18640-L

CONING BUTTON FOR MACHINES NO. 6C, 8 and 45
Universal Guide No. 45-179-16
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CONING BUTTON FOR MACHINE NO. 50
Universal Guide No. 73-167-37
AlSiMag Guide No. GE-14237-L

TENSION SLEEVE FOR MACHINE NO. 90
Universal Guide No. BU-807
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BOOTH 21
AMERICAN TEXTILE MACHINERY EXHIBITION
MAY 8, 12, 1950

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My Grandpappy ran that old SCHOLFIELD card years ago I want to see it again
How about the MODEL 60 ELECTRO - PNEUMATIC WARP SPOOLER.....?
The SIMPLEX wool spinning frame with FLUID DRIVE for me ...!
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The Gates "GUIDE for SELECTING or DESIGNING V-BELT DRIVES" is widely recognized as the most *comprehensive* and *complete* book of its kind—and also the *easiest to use.* It enables you to find all the possible combinations of stock drives for your machine with the *least amount of calculation*—and almost *automatically* gives you the drive of *lowest price* that will be adequate for the job.

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IN ALL WOOL DYEING OPERATIONS *ANTHOMINE* INCREASES THE AFFINITY OF WOOL FIBRES FOR DYESTUFFS.

THIS RESULTS IN LEVEL SHADES WHEN DYEING STOCK, YARN OR PIECE GOODS.

TIPPY AND BLENDED WOOLS ARE DYED A SOLID SHADE BY ADDING *ANTHOMINE* TO THE DYE BATH.

Mills throughout the country use* ANTHOMINE *for:

- Even dyeing
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Send for Technical Service Bulletin #203-100.2 for complete information, including how to use ANTHOMINE for Top and Yarn Dyeing, Pressure or Package Dyeing, Leveling Unevenly Dyed Yarn or Shady Pieces, Dyeing Metallized Colors, etc.

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CUT COSTS!

IN ONE OPERATION
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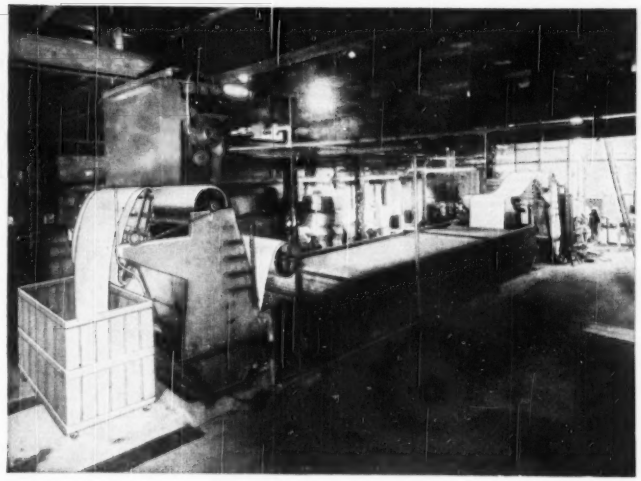

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More than 15 million yards have been successfully processed.

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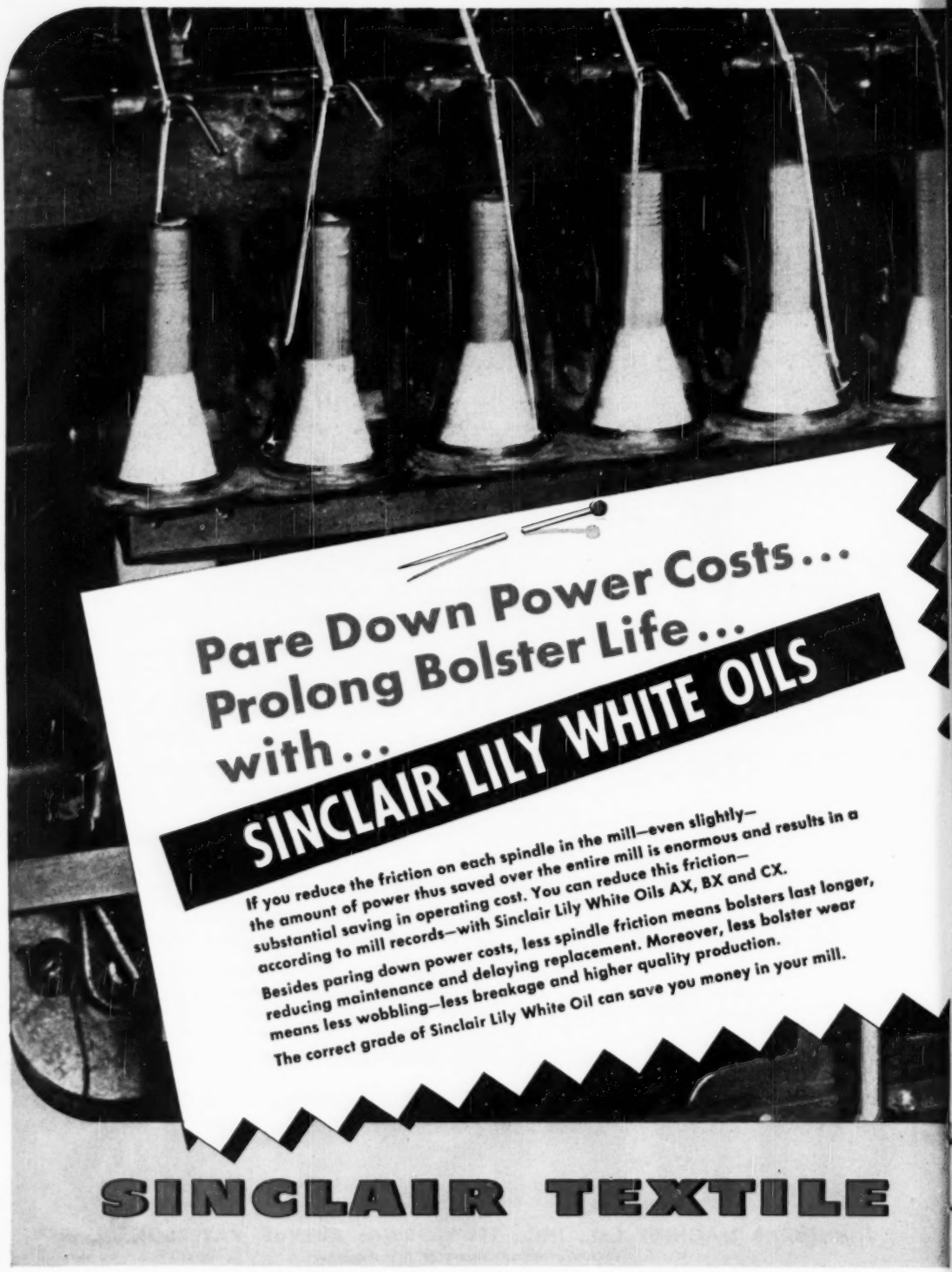
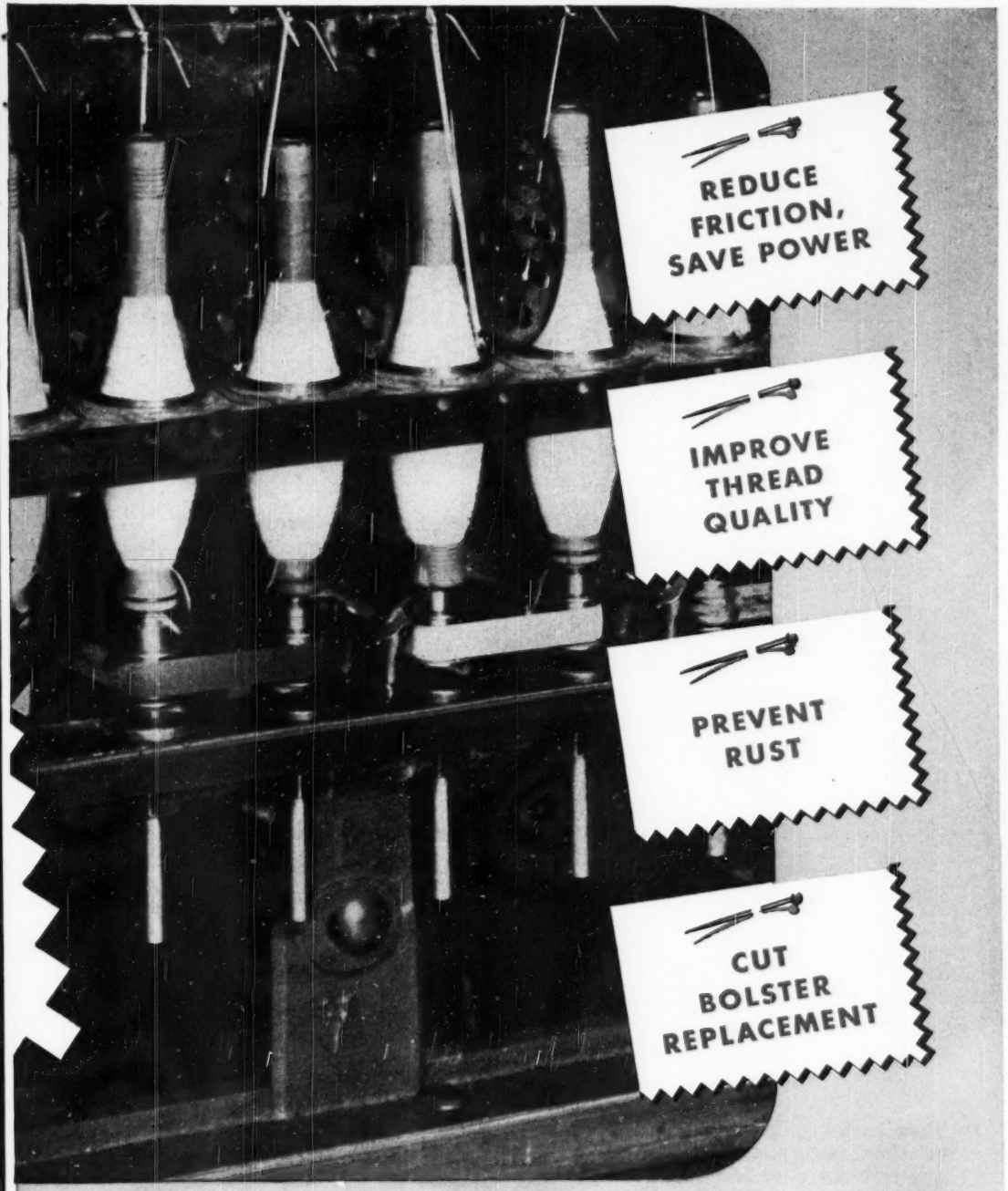
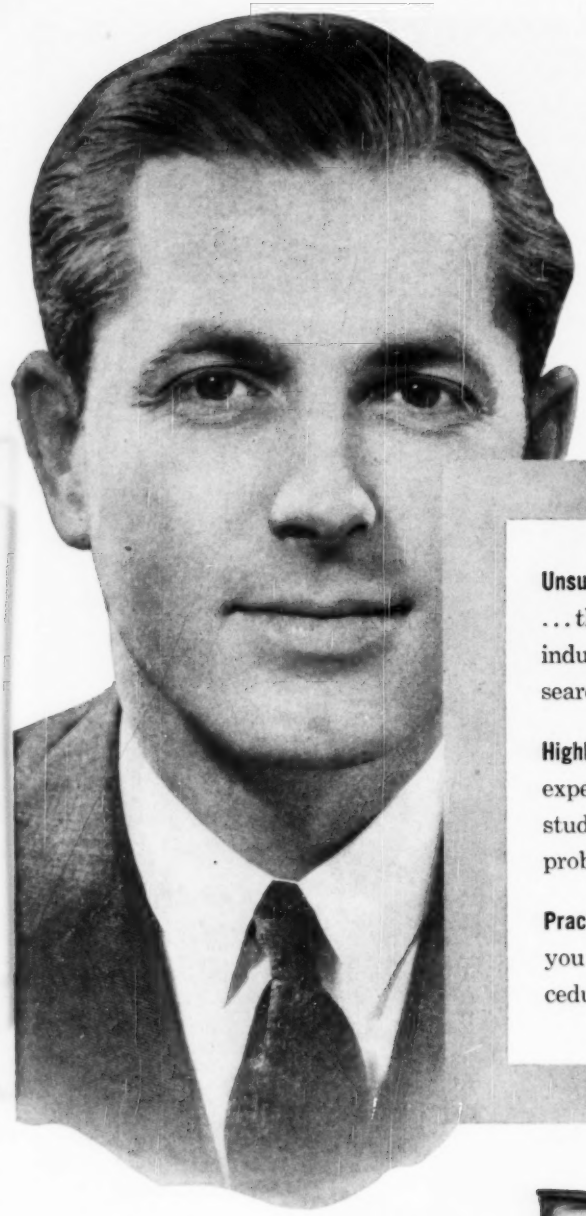
Exclusive manufacturers of this machine.


Pare Down Power Costs...
Prolong Bolster Life...
with...
SINCLAIR LILY WHITE OILS
If you reduce the friction on each spindle in the mill—even slightly—
the amount of power thus saved over the entire mill is enormous and results in a
substantial saving in operating cost. You can reduce this friction—
according to mill records—with Sinclair Lily White Oils AX, BX and CX.
Besides paring down power costs, less spindle friction means bolsters last longer,
reducing maintenance and delaying replacement. Moreover, less bolster wear
means less wobbling—less breakage and higher quality production.
The correct grade of Sinclair Lily White Oil can save you money in your mill.
SINCLAIR TEXTILE



LUBRICANTS

For lubrication counsel, see your nearest Supplier of Sinclair Products or write Sinclair Refining Company, 630 Fifth Avenue, New York 20, N. Y.



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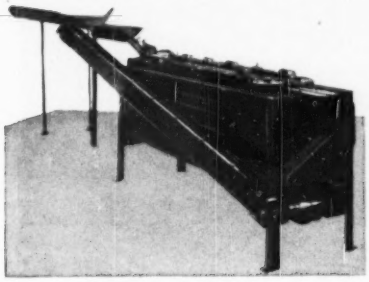
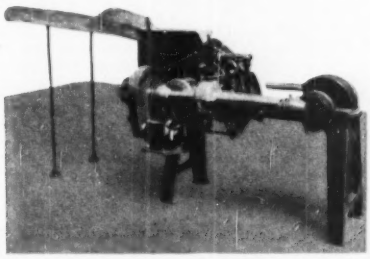


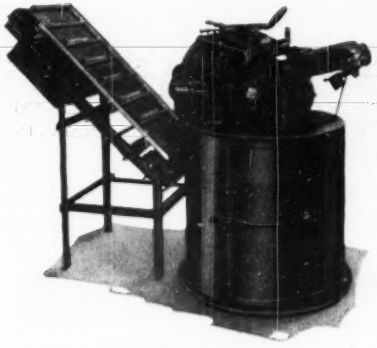
TYPE L QUILL CLEANER

For cleaning loom bobbins containing rayon, silk, wool, worsted, and some counts of cotton feeler waste



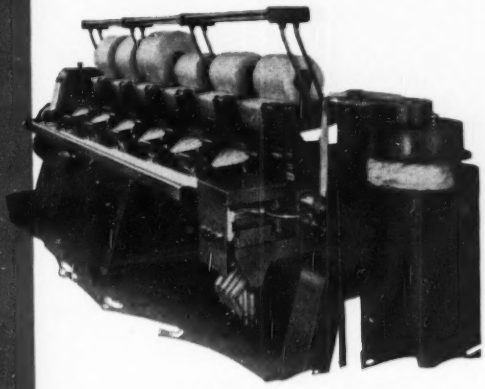
TYPE K QUILL CLEANER

For cleaning automatic loom bobbins of plain finish, containing cotton and spun rayon feeler waste



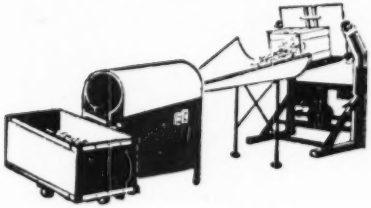
TERMACO ROVING BOBBIN CLEANER

For cleaning card room bobbins, containing cotton and spun rayon roving



THE NEW TERMACOMBER

New High-Production Cotton Comber originated at Cramerton Mills



ROTO YARN CONDITIONER with BOBBIN BOX HOIST

Extremely high productive capacity for setting twist in yarns

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ATLANTIC CITY
MAY 8-12, 1950

BOOTHS 277-287

Reversible Drop Box

Loop

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We are exclusive agents for Denman Pickers. Designed for rugged service, they give Lowest Cost Per Loom Per Year

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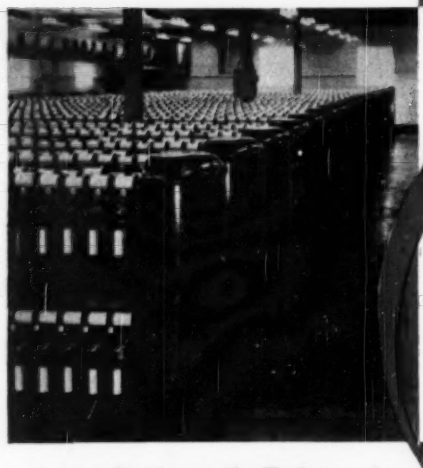
CHARLOTTE, N. C.

Southeastern Agents for ECONOMY BALER COMPANY, Ann Arbor, Michigan

High Speed Redraw

Atwood Model 200 Redraws produce spools of proper density and wind to provide *highest efficiency* in the next operation. Speed is quickly and precisely regulated by *variable speed drive*, operated by hand wheel and pointer. Drive and traverse gearing mechanisms are *totally enclosed* to prevent yarn soilage.

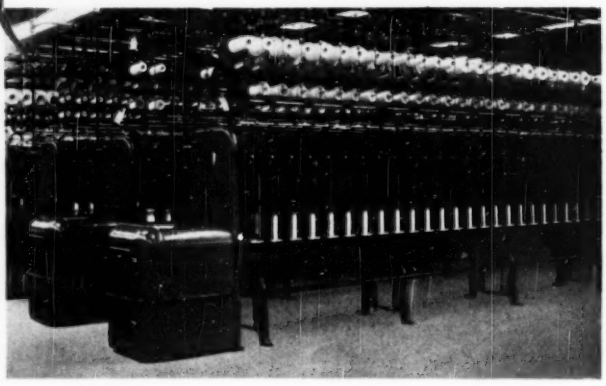


Throwing Synthetics

At top speed ... with perfect control

Large Package Up-Twister

Atwood Model 110 Up-Twisters are equipped with bobbin hangers which maintain *positive alignment* between the cork roll and takeup bobbins. Spindles, swings and brakes are mounted on a heavy, longitudinal, prespaced spindle rail which insures *rigidity* of the frame . . . results in higher spindle speeds, more uniform yarn tension, and less maintenance. Gearing is *totally enclosed*.



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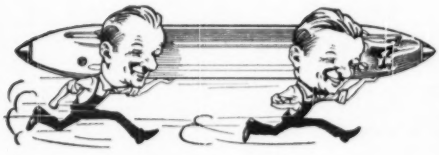
Versatile Ring Twister

Atwood Model 10 Ring Twisters accommodate the *widest range* of requirements, including the currently popular twisting from zero twist tubes for warping. Various builders produce *straight or tapered* bobbins. One to 12 ends can be twisted, with a wide range of turns. *Individual stop motion* for each end in the ply. Magazine creels built to specification.

The Shuttle People are coming to ATLANTIC CITY *with* THESE SHUTTLE IMPROVEMENTS

Booth Numbers 582-583-584



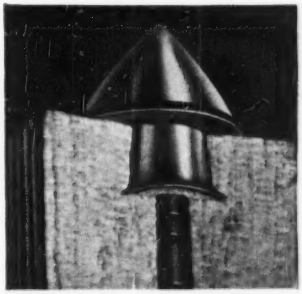
AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

WATSON-WILLIAMS MFG. CO.

MILLBURY, MASSACHUSETTS

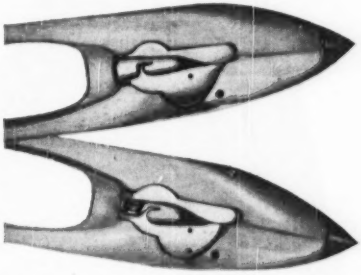
SOUTHERN REPRESENTATIVES: Watson and Desmond, Box 1954, Charlotte, N. C., Arthur J. Bahan, 810 Woodside Bldg., Greenville, S. C., Walter F. Daboll, Jefferson Bldg., Greensboro, N. C.

NORTHERN REPRESENTATIVE: Guy C. Burbank, 32 Beaconsfield Rd., Worcester 2, Mass.



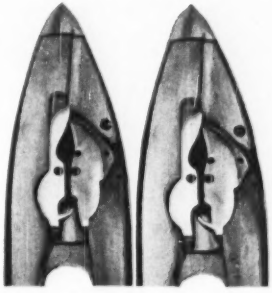
The Locking Tip Sleeve

Anchors tips forever. As tip is driven into shuttle, Locking Sleeve increases pressure on tip shank. Cuts down accidents, expensive warp breakage and idle looms.



Interchangeable Eye Shuttle for fine blends and mixes

In a matter of seconds, you can remove a regular eye and substitute a Watson-Williams tension eye — unsurpassed for improved fabrics and fewer seconds.



Reverse Wind (S7X) Center Tension Eye Shuttle for Rayon

Eliminates reverse wind rayon crepe filling troubles. Holds thread in perfect alignment and constantly down in place.

Who Made This Shorty a Success?

This lightweight wool coat was an instant success. That's because the manufacturer realized the importance of graceful draping qualities; of bright, clear colors; of a soft, smooth fabric that refused to wrinkle.

That is where Amalgamated Service comes in. Our chemists work side-by-side with a manufacturer to determine the proper scour, dyeing assistants and softeners to make his fabric sell.

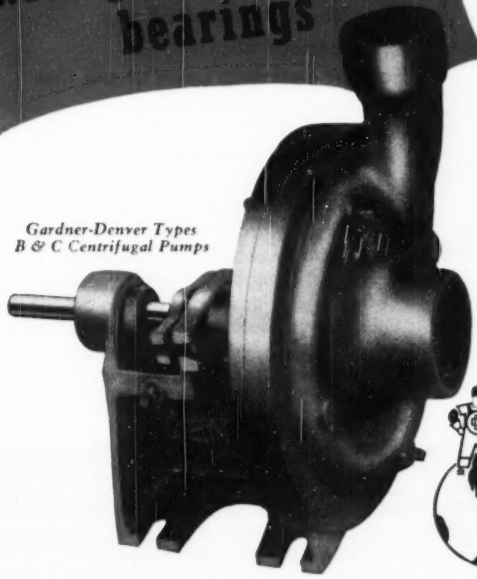
Amalgamated Chemical Corporation Products include Fabric and Hosiery Finishes, Dyeing Assistants and Scouring Agents. Amalgamated Field Representatives are experienced Textile chemists, ready to assist with any textile chemical problem. Our modern, completely equipped research and production laboratories are at your service for better fabrics that sell faster. Write or call Amalgamated.

AMALGAMATED CHEMICAL CORP., Phila. 34, Pa.
Southern Division: 1819 Spring Garden Street, Greensboro, N. C.

Amalgamated

Don't Grease that Pump!

it's a *NEW* GARDNER-DENVER with pre-lubricated bearings



Gardner-Denver Types B & C Centrifugal Pumps

Pre-lubricated ball bearings—now furnished with Gardner-Denver types B & C, BE & CE, CAX & CAE Centrifugal Pumps—never need greasing. They're factory lubricated with the proper kind and amount of grease, applied under the cleanest conditions known.

The grease is sealed in—FOR LIFE—all contaminating dirt is sealed out. Lubricant purchasing problems are eliminated. There's never any danger of overgreasing or undergreasing. And you save the time and grease consumed by periodic lubrication.

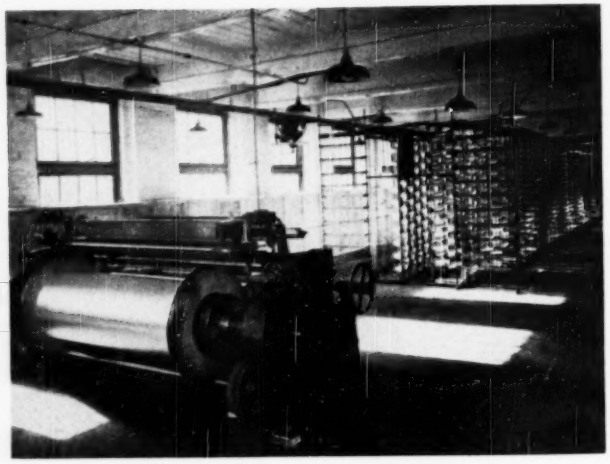
For lower cost pumping, get full information on Gardner-Denver Centrifugal Pumps with *pre-lubricated bearings. Write us today.*

GARDNER-DENVER

Since 1859

Gardner-Denver Company, Quincy, Illinois
Atlanta, Ga.; Birmingham, Ala.; Knoxville, Tenn.; Washington, D. C.; New York, N. Y.; Philadelphia, Pa.; Pittsburgh, Pa.; New Orleans, La.

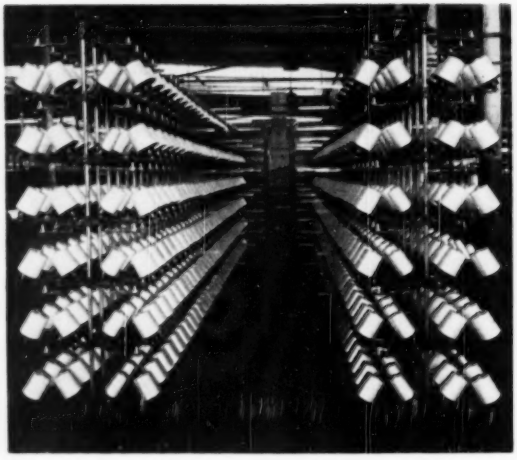
In Canada:
Gardner-Denver Company (Canada) Ltd., Toronto, Ontario



Shown Here With Horizontal Type Creel

the Cocker High Speed Spindle Driven Warper

Be sure to see the Cocker New High Speed Warper in operation at the Show.



Static Eliminator
Electric Control of Warp Speed
Electric Indication of Speed at all times
Pushbutton Controls throughout
Motor Mounted Magnetic Brake
Hand Operated Rheostat, for changing operating speed at any time

Shown Left:
The Cocker Vertical Type Magazine Creel for handling yarn on cones; also used for handling comb yarn from spools or bobbins and especially adapted for low twist or high twist yarns. Creel equipped with special design adjustable tension. For full information on this and other Cocker warp preparatory equipment, write or wire our home office.

Cocker Machine and Foundry Co., Gastonia, N. C.

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT

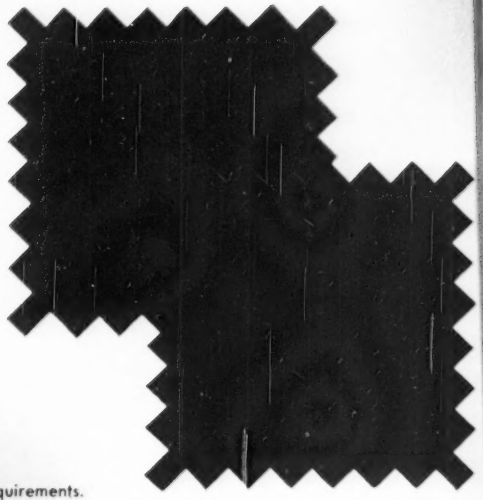
AMACEL* COLORS
answer the demand for better
color fastness in synthetic textiles

Now it can be told!!!

gas fading resistance
***PLUS* 35 to 40 hours**
light fastness and fast-
ness to perspiration.

Amacel

BLUE GLF



For months there have been whisperings about this new and versatile blue.
Now . . . after long research . . . it can be announced
as the latest addition to the popular range of AMACEL colors.

AMACEL BLUE GLF in combination with
AMACEL *Red VIX, Yellow GLF—CW—4RLF*
will enable the production of all shades of
taupes, tans, greys, greens and other mode shades, meeting all consumer requirements.

Limited quantities of AMACEL BLUE GLF are now available,
and larger production is under way to meet the anticipated demand.

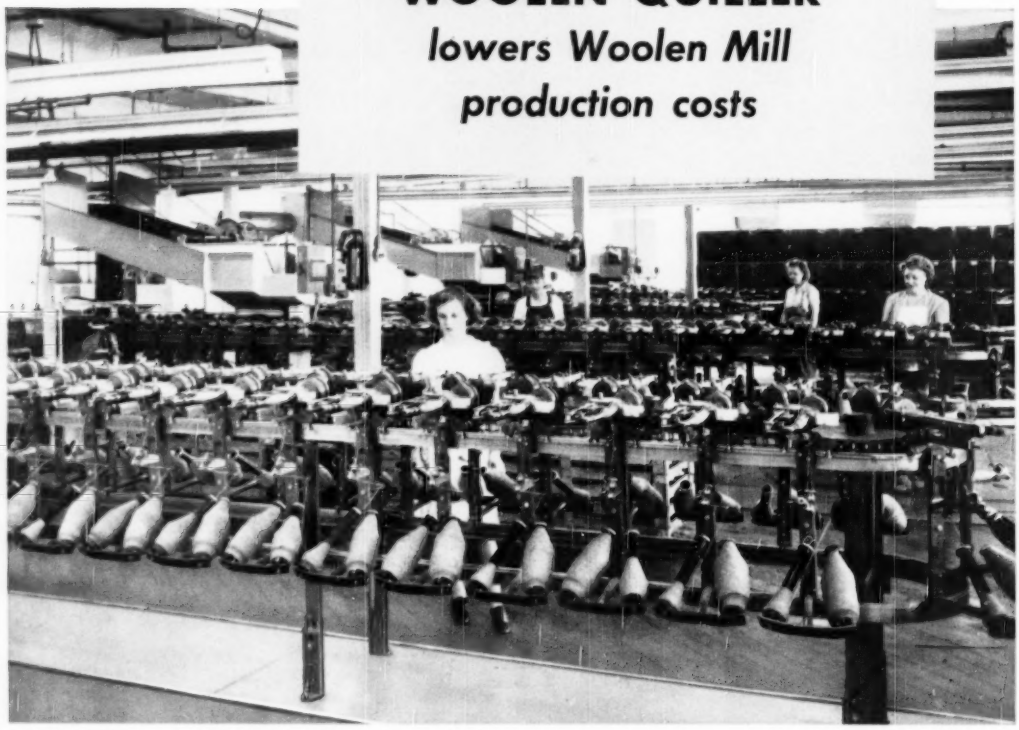
For detailed information on the whole range of AMACELS available, as well as
data regarding your own particular requirements, consult our nearest branch.
A.A.P. technicians are always happy to be of service.

AMERICAN ANILINE PRODUCTS, INC.

50 Union Square, New York, N. Y. • **Plant: Lock Haven, Pa.** • **Branches:** Boston, Mass.
Providence, R. I. • Philadelphia, Pa. • Charlotte, N. C. • Chicago, Ill. • Los Angeles, Cal.
Chattanooga, Tenn. • **Dominion Anilines & Chemicals Ltd.** • Toronto, Canada • Montreal, Canada

*Reg. U. S. Pat. Off.

How the ABBOTT Automatic WOOLEN QUILLER *lowers Woolen Mill production costs*



THE ABBOTT Automatic Woolen Quiller winds loom bobbins directly from large ring spinning frame bobbins. This procedure saves the cost of intermediate winding and reduces the handling of the yarn.

Normal production with an Abbott Automatic Woolen Quiller is approximately 1000 loom bobbins per hour per machine, depending largely on the quality of yarn being used. The number of spindles per Quiller is determined by the yardage on the loom bobbin and regardless of the number of spindles, only one operator is required per Quiller.

WOOLEN MILLS now using large ring spinning, or who contemplate changing to this method, will find it to their advantage to investigate the ABBOTT Automatic Woolen Quiller as a direct means of lowering their production costs.

ABBOTT MACHINE COMPANY

FACTORY AND MAIN OFFICE:
WILTON, NEW HAMPSHIRE

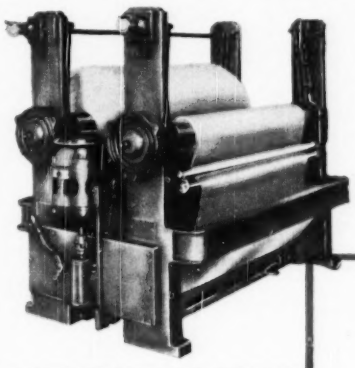
SOUTHERN OFFICE: GREENVILLE, SOUTH CAROLINA

See Them Working at the Show!

FIRST TIME ON VIEW

V.V. 15 TON PADDER

A new larger, heavier, sturdier machine. The two rolls are larger—19½" in diameter. Pneumatic pressure system controls each roll separately. All controls on one panel. Finest workmanship throughout—stainless steel color pan, guide rolls and submersion rolls. Powered through Varidrive with worm gear reducer.



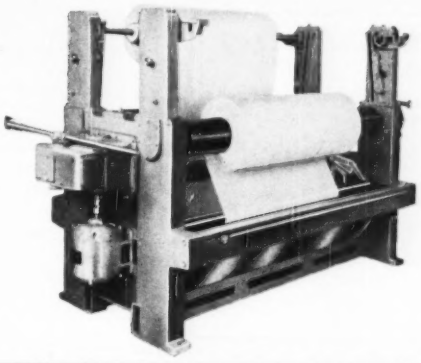
These modern Van Vlaanderen Machines will be seen at Atlantic City, May 8-12

•

You are invited to visit us at Booths 559-562

V. V. TENSIONLESS AUTOMATIC JIG

Preferred for nylon and other synthetics where tension is harmful in the dyeing.



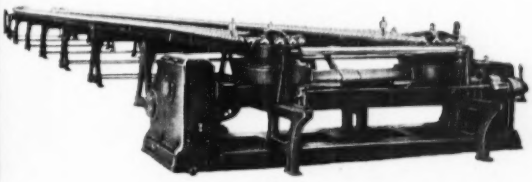
VAN VLAANDEREN C.T.* JIG

Dyes all fabrics with better tension control, drag-free idling, easier and cleaner operation, larger cloth rolls.

*Controlled Tension

V.V. HEAVY DUTY TENTER

The massive construction and superior design of this super-duty Tenter place it at the top of all tenters in performance and superiority of finished goods.



VAN VLAANDEREN MACHINE COMPANY

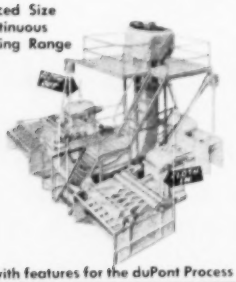
370 Straight Street • Paterson 3, New Jersey

Cable address Vlaanderen, Patersonnj, U. S. A.

World's largest manufacturers of machinery for processing modern fabrics

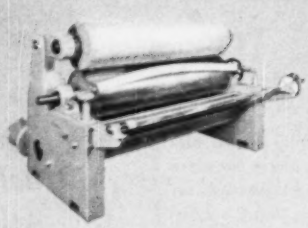
WIESNER-RAPP "BANTAM"

Reduced Size Continuous Bleaching Range



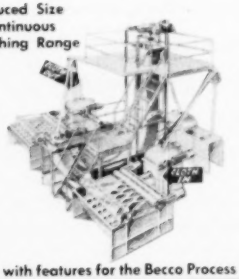
with features for the duPont Process

DYE PADDER



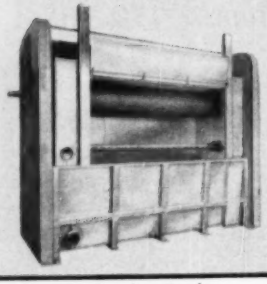
WIESNER-RAPP "BANTAM"

Reduced Size Continuous Bleaching Range



with features for the Becco Process

Stainless Steel
TIGHT STRAND WASHER



QUALITY TEXTILE FINISHING

calls for

W-R MACHINES AND EQUIPMENT

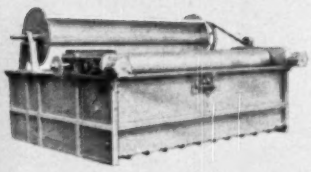
Modern textile finishing demands highly functional machinery and equipment that is able to perform economically with a minimum of maintenance.

Wiesner-Rapp machines and equipment of stainless steel are designed to beat this challenge—good reason why they are first choice of a steadily increasing number of America's largest textile finishing plants.

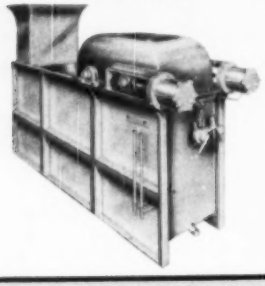
It will pay you to investigate the outstanding features of the machines and equipment of the W-R line.

Write today for descriptive literature, or if you wish to send us your specifications we will be glad to supply your requests.

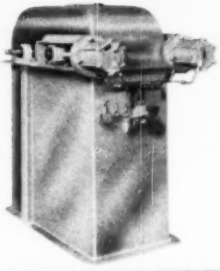
Stainless Steel
SLACK WASHER



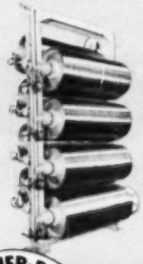
Stainless Steel
SATURATOR



Stainless Steel
SQUEEZER



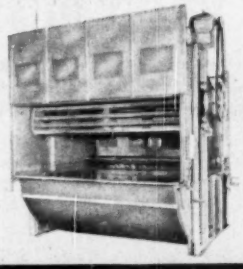
Stainless Steel
DRY CANS



Stainless Steel OPEN WIDTH J-BOX

with features for the duPont Process

Stainless Steel
PIECE DYE KETTLE



THE WIESNER-RAPP CO., INC.

1600 SENECA ST., BUFFALO 10, N. Y.

Manufacturers of Textile Finishing Machinery

HOW TO GET *BETTER* POTATO STARCH

NOW you can buy *pure, clean, white* Potato Starch *with confidence,* from ONE big dependable source! And you can finally overcome all danger of short or constantly interrupted supplies, quality variations and unreasonable price fluctuations. Simply specify AROOSTOOCRAT and NESTACO Brands of Potato Starch. MORNING-STAR, NICOL, INC. can now offer the *entire output* of THREE mills . . by far the largest production of high grade Potato Starch in Aroostook County, Maine! Better still, you'll get the finest *uniform* quality and in sufficient quantities to meet the largest requirements. Our capable technical service staff will gladly lend you every possible aid on Potato Starch problems.

SEND FOR new Aroostoocrat and Nestaco Potato Starch descriptive folder and product information bulletin. This factual literature contains complete technical data and other pertinent information on these fine brands of Potato Starch.

FREE CONSULTING SERVICE

SEND FOR *our Dry Dextrine or Starch Product Operation Data Sheet. Fill in and return it promptly. Our laboratory staff will gladly study your requirements and promptly recommend the one best and most economical formula for the specific operation you describe. This valuable laboratory service does not cost you one penny! Take advantage of it NOW!*

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16th

SOUTHERN TEXTILE EXPOSITION

OCTOBER 2 to 7, 1950
TEXTILE HALL
GREENVILLE,
SOUTH CAROLINA

Over two hundred manufacturers and dealers in textile machinery, equipment, accessories, materials, supplies and parts will be represented.

Please note Show hours:

Monday through Friday . 9 A.M. to 7 P.M.

Saturday . . . . . 9 A.M. to 1 P.M.

Special committees will arrange for hotel and other accommodations in order that exhibitors and visitors may be assured of comfortable quarters while attending the Exposition.

Address correspondence:

TEXTILE HALL CORPORATION

POST OFFICE BOX 1323

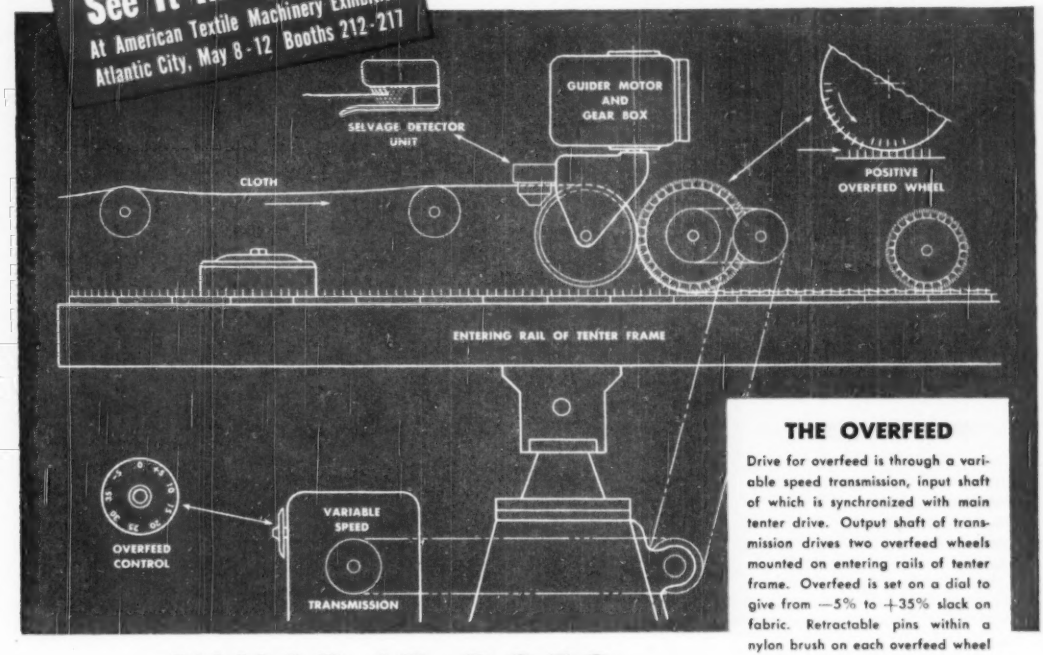
GREENVILLE, SOUTH CAROLINA

It's New!

M&W POSITIVE OVERFEED

WITH SELVAGE GUIDER FOR POSITIVE SHRINKAGE CONTROL

See It In Operation
At American Textile Machinery Exhibition
Atlantic City, May 8-12 Booths 212-217



THE OVERFEED

Drive for overfeed is through a variable speed transmission, input shaft of which is synchronized with main tenter drive. Output shaft of transmission drives two overfeed wheels mounted on entering rails of tenter frame. Overfeed is set on a dial to give from —5% to +35% slack on fabric. Retractable pins within a nylon brush on each overfeed wheel positively grip selvage and *do not release it* until it is pinned to tenter chain. Thus the percentage of overfeed is both *positive* and *uniform*.

WHAT IT DOES

1. Positively and uniformly controls amount of slack or overfeed on tenter dryer from —5% to +35%.
2. Maintains the pinning of each selvage on the tenter chain within 1/16 inch tolerance.
3. Handles all types of fabrics and is adaptable to all types of finish.
4. Operates at speeds up to 100 yards per minute.
5. Can be attached to practically all existing tenter frames (when equipped with M & W pin type tenter chains).
6. May be transferred from one tenter frame to another in minimum time, with minimum expense.

THE GUIDER

The M & W selvage guider involves a new principle. It brings the cloth to meet the rails, — not the rails to meet the cloth. A photo-electric beam engages the selvage and instantaneously operates the guider arm which is pivoted tangent to the overfeed wheel. Moving only a pound or two of aluminum, instead of many hundreds of pounds of cast iron, means much *faster* and *more accurate* guiding.

Manufactured exclusively in U. S. A. under license from Tootal, Broadhurst, Lee Company Limited of Manchester, England by

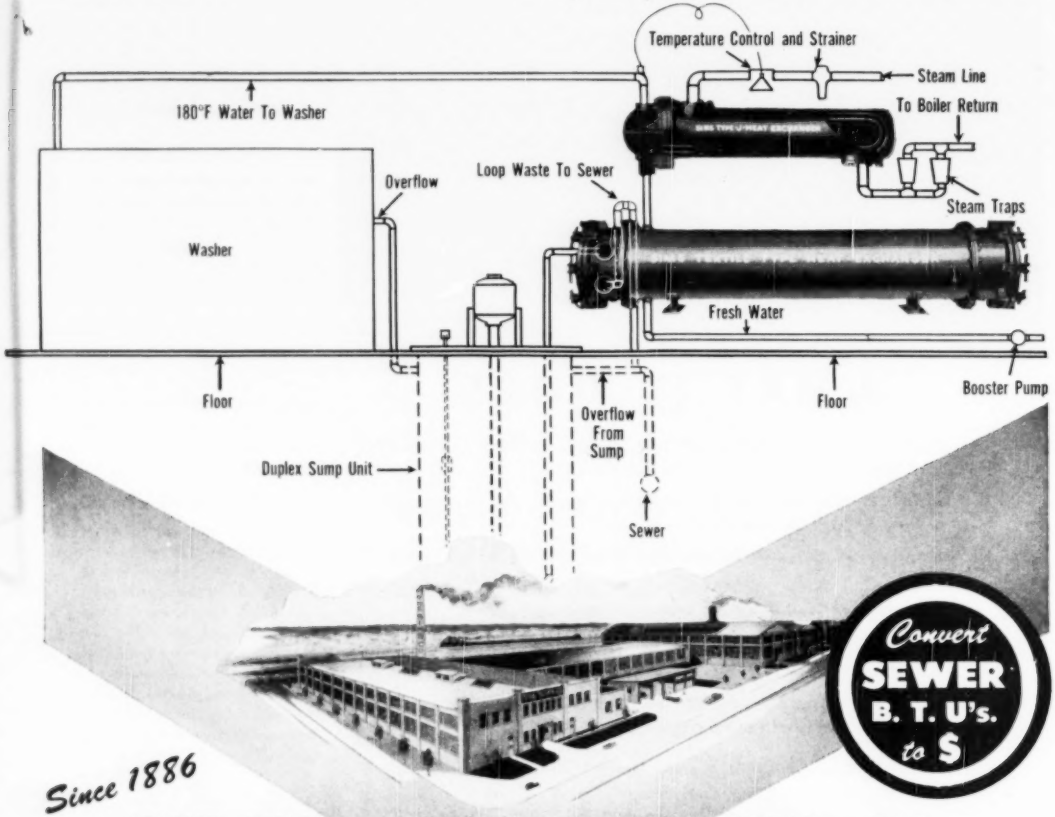
MARSHALL and WILLIAMS CORPORATION

PROVIDENCE, R. I. • Greenville, S. C. • New York, N. Y.

MILLS Show 70 to 90% Annual Return on Cost of SIMS Heat Recovery Systems . . .

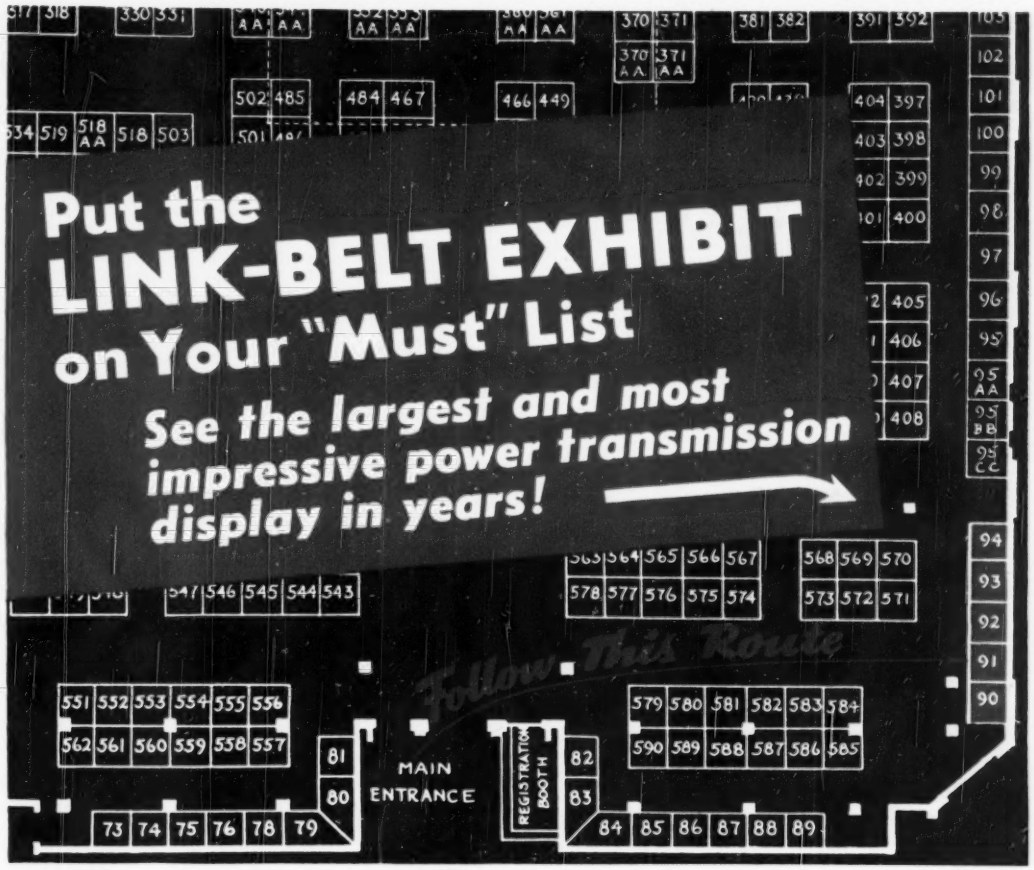
Sims of Erie, Pa., heat recovery specialists, for 62 years have discovered a method of reclaiming valuable BTU's from linty contaminated textile open sewers. If your sewer water is over 120° F., you are wasting fuel enough to pay for this Sims System in a matter of months. Several textile plants show a 70 to 90% annual return on the first cost of their Sims Heat Recovery Systems.

One installation as shown below shows how 180° water is supplied to washers with a very minimum of steam required. Our nearest representative will be glad to survey the possibility of profitable heat recovery in your plant and make definite recommendations at no obligation to you. Consult with SIMS OF ERIE engineers today.
THE SIMS CO., BOX 1096T, ERIE, PENNA.



THE SIMS COMPANY • ERIE, PA.

Manufacturers of Exhaust Gas Boilers • Heat Exchangers • Storage Water Heaters • Feed Water Heaters Steam Separators • Commercial Type Instantaneous Water Heaters • Oil Heaters • Quenching Oil Coolers Caustic Soda (Sodium Hydroxide NaOH) Recovery Equipment and Unit Type Coal Pulverizers



See these amazing new items of Power Transmission and Speed Control Equipment:

- Variable speed wind-up drives with both hydraulic and electronic controls. (In operation.)
- A motorized P.I.V. Variable Speed Drive with hydraulic control. (In operation.)
- A slasher P.I.V. Variable Speed Drive.
- A dry can roller chain drive.
- A carding machine silent chain drive and Electrofluid drive.
- A display of modern ball and roller bearing blocks, chains and other products used by the industry.

Remarkable Developments of Vital Importance to the Textile Industry

Entering Atlantic City's Auditorium, turn first to the right, and directly ahead of you stands a display of Link-Belt Company's latest and most remarkable achievements, applicable to the textile industry. Textile mill specialists and district sales engineers will be on hand to explain and demonstrate these truly epoch-making devices.

Whatever you do at Atlantic City, be sure to see the Link-Belt exhibit.

LINK-BELT COMPANY

Philadelphia 40, Chicago 9, Indianapolis 6, Atlanta, Houston 1, Minneapolis 5, San Francisco 24, Los Angeles 33, Seattle 4, Toronto 8. Offices in Principal Cities.

11.640

LINK-BELT

Power Transmission Machinery
"THE COMPLETE LINE"

Keeps Yarn FREE from SNARLS

Insures LEVEL Shades

The SMITH-DRUM *Pulsating* Skein Dyeing Machine

This machine introduces, for the first time in this country, the pulsating or intermittent flow principle of skein dyeing.

OFFERS THESE MAJOR ADVANTAGES:

1. **Quality—**
   Yarn free from snarls and felting.
   Lofty handle of yarn.
   Uniform dyeing, even in extremely large lots.
   Complete change of liquor every 45 seconds.
2. **Economy—**
   Saves floor space, chemicals, dyestuffs, water and steam.
3. **Versatility—**
   Handles everything from coarse carpet yarn to finest worsted and cashmere yarns . . . in batches up to 3000 lbs.

{Licensed by Samuel Pegg and Son}

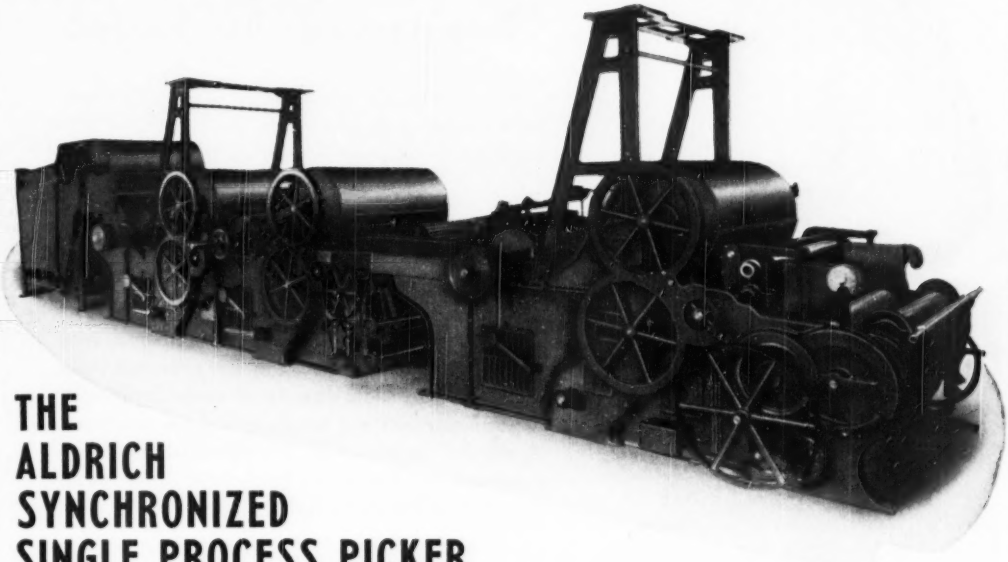
AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

VISIT OUR EXHIBIT BOOTHS 11-23

SMITH, DRUM & COMPANY

ALLEGHENY AVENUE AT 5th STREET, PHILADELPHIA 33, PA.

FOR MAKING EVENER CARD SLIVER



THE ALDRICH SYNCHRONIZED SINGLE PROCESS PICKER

A true single-process picker, in which the finisher section is fed with a smooth, well-formed lap from the breaker section, instead of with loose cotton from a gauge box or hopper feeder. The Aldrich Synchronizer controls the feed from the breaker section to deliver the lap exactly as required by the finisher.

This makes a lap which is not only quite even yard by yard, but unusually even in every direction throughout the lap. Such a lap will make a very even card sliver.

The feeder on the Aldrich picker is equipped throughout with permanently lubricated ball bearings, which never require attention.

The Aldrich picker has all possible parts in the evener mounted on ball bearings for extreme sensitivity.

The Aldrich picker is equipped with a new and improved, completely silent, sideshaft drive to the evener.

AldricH MachinE

Greenwood WorkS South Carolina

Tuffer Cylinder Cloth is "Engineered" for the Job

Tuffer cylinder cloth foundation plays a vital role in the carding process. It is the backbone that supports the wires while they do their work.

To do this properly it must have great strength, it must be thick enough to give vertical support to the wires, and too, must be flexible enough to permit some wire displacement and yet draw the wire back into position when the pressure is removed.

The complete satisfaction of our customers, year after year, is proof indeed that our patented 4-ply Tuffer Cylinder Cloth does its job exceedingly well. It positively will not separate under severest use. A careful examination will convince you of its superiorities. There's no better foundation made than TUFFER CYLINDER CLOTH.

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

Southern Plants: Atlanta, Ga. and Gastonia, N. C.

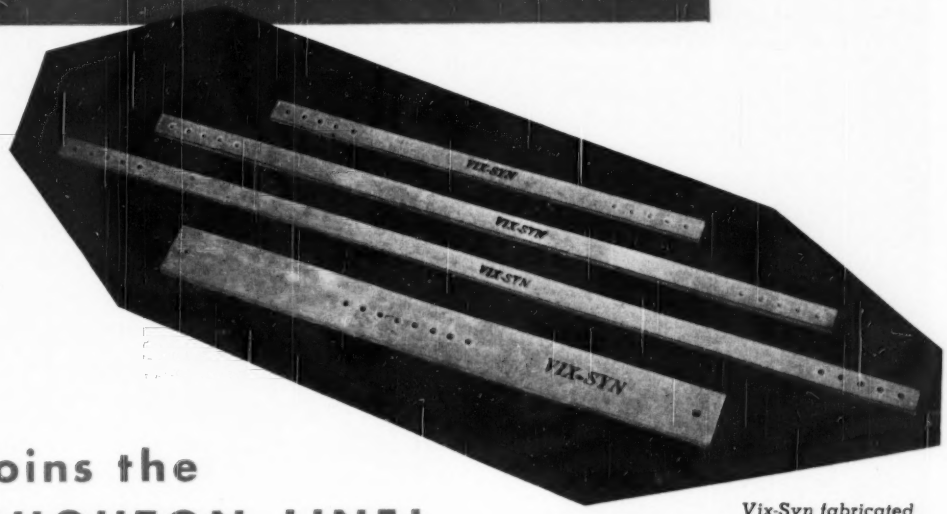
Branches: Philadelphia, Pa. and Blanco, Texas *Direct Representation in Canada*

TUFFER CARD CLOTHING

IMPROVES PRODUCTION ALL ALONG THE LINE

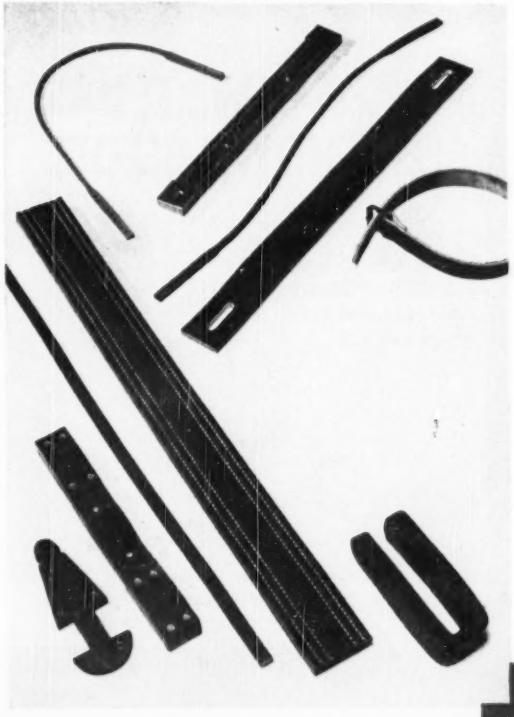
SEE US IN ATLANTIC CITY — BOOTHS 339-340

A NEW TEXTILE STRAPPING



joins the HOUGHTON LINE!

Vix-Syn fabricated harness and jack straps



Houghton Leather Straps for all textile machine uses

We've made textile leather specialties for more years than we sometimes like to remember. And under the cruel punishment that strapping takes when machines run at top speed, those straps, such as pictured at the left, stand up so well that textile men remember them, too, and specify them.

Now we've supplemented these with a new line. For the past year we've had out on test a new type of strapping, intended primarily for harness and jack straps. They are made from a duck-and-synthetic-rubber material, absolutely uniform as to tensile strength and elongation.

Any tendency to stretch is held in check by the fabricated nature of the reinforcement. And they're priced right, which gives them further sales appeal.

We suggest you write for a small sample and prices of these new VIX-SYN straps, pictured above. Also that you check on leathers — lug and check straps, etc. — to see if you're getting full value at today's higher speeds. The VIM and VIX-SYN line merit your investigation.

E. F. HOUGHTON & CO.

Textile Leathers, Processing Oils and Lubricants

Philadelphia 33 and Charlotte 6

VIM TEXTILE LEATHERS

what's

ABINGTON

got

that's

NEW?

In our exhibit at the ATLANTIC CITY Textile Machinery Exhibition **(SPACES #200 to #205)** you will see the very latest developments in textile machinery recently perfected by our engineers.

AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

EVERYTHING IS NEW...IT HAS NEVER BEEN SHOWN BEFORE

- **LABORATORY DYEING EQUIPMENT**
- **ABINGTON NOIL CONVEYOR on Comber**
- **DUMPING RECEIVER and FILTER RECEIVER**
- **ABINGTON PUMP and motor**
- **ABINGTON HAND KNOTTER**

Note:
We are all stopping at the CLARIDGE HOTEL where we may be reached "after hours."

You will receive a cordial welcome by the following members of our organization, who will be in attendance:

Sumner Smith, Sr.
Frank E. Rowe, Jr.
Fred H. White, Sr.
Walter W. Watt
John W. Burbine
Samuel Baugh, II
Fred H. White, Jr.
Gaston H. Boyd
Sumner Smith, Jr.
Ernest Clark
Frank J. Richardson
Oliver H. Ramo

ABINGTON TEXTILE MACHINERY WORKS BOSTON MASS.

5 reasons to specify TECA* fiber

TECA REDUCES SHRINKAGE
Teca fiber undergoes little or no change in size when washed or cleaned. A high Teca content tends to stabilize a fabric, decreasing its shrinkage.

TECA IS CRUSH-RESISTANT
Teca offers lasting resistance to wrinkles — helps build a fabric with superior shape-holding qualities.

TECA HELPS HOLD A PRESS
Teca's thermoplastic action helps preserve a "fresh-pressed" look in garments — prolongs the life of pleats and trouser creases.

TECA IS NON-IRRITATING
Teca has the exceptionally soft feel and suppleness for which cellulose acetate fibers are famous.

TECA IS IN THE NEWS
Teca is a key-fiber in the latest fabrics for men's and women's wear. *Teca-content is news today. Specify it. Advertise it.*

* *TECA is an Eastman trademark. It identifies a short crimped fiber made by Eastman from cellulose acetate, and otherwise known as estron or acetate rayon staple. There is only one TECA fiber.*

Tennessee Eastman Corporation

(SUBSIDIARY OF EASTMAN KODAK COMPANY)

KINGSPORT, TENNESSEE

A versatile valve for general service . . .

LUNKENHEIMER Figure 123 N-M-D on Metallic Disc

150 lb. S.P.
300 lb.W.O.G.

The valve with the quick-change disc

STEAM • HOT WATER • COLD WATER
AIR AND GAS • GASOLINE • OIL • BUTANE • PROPANE

Ultra-modern Manufacturing Facilities

From raw material control to final testing, new machinery, methods and research improve the quality and speed the making of Lunkenheimer Valves. New production equipment, like the group of medium ram type turret lathes shown here, is but a small part of Lunkenheimer's extensive improvement program to provide users with the best possible valve service.

Fig. 123 is an exceptionally rugged valve . . . available with various types of discs especially compounded to give top results on the services for which they are recommended. Discs can be renewed or interchanged quick as a wink, insuring long-time satisfactory valve service with negligible maintenance expense. Disc holder is slip-on type, perfectly guided. Hexagon head gland is an aid to easy repacking. A further economy feature is the distinctive, long-wearing stem material developed by Lunkenheimer, eliminating stem-thread failure due to wear.

The "N-M-D" valve is also regularly available in angle, check and quick operating patterns. Circular No. 558, descriptive of the complete line, is yours for the asking.

N. M. D. and other Lunkenheimer Valves are available in all industrial centers. You can depend upon your Lunkenheimer Distributor for prompt service on your requirements.

ESTABLISHED 1862

THE LUNKENHEIMER CO.

"QUALITY"

CINCINNATI 14, OHIO, U.S.A.

NEW YORK 13 • CHICAGO 6 • BOSTON 10 • PHILADELPHIA 34

EXPORT DEPT., CINCINNATI 14, OHIO, U.S.A.

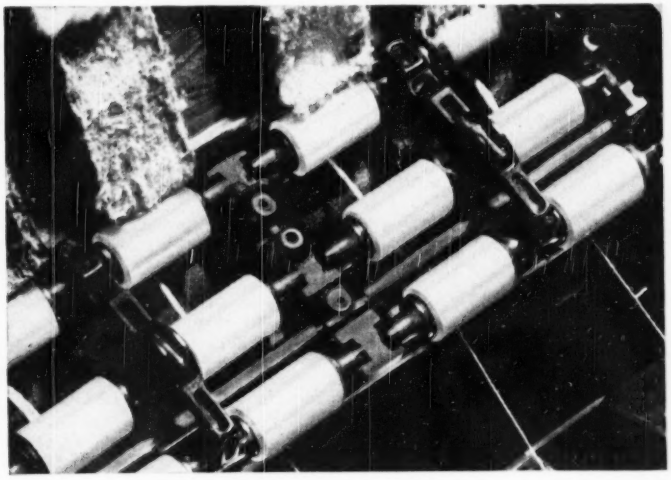
Columbus discovers

Dayco Roll Coverings

are 12 times better!

Here's a testimonial from a Columbus, Georgia mill, of the extraordinary performance to expect when you switch to Dayco Roll Coverings.

This mill ran 30,000 spindles using 210,000 fabricated cots during a 26 month period. During the same time, under the same conditions, only *21,000 Dayco Cots* were used on 36,000 spindles! Only 1 Dayco Cot for every 12 competitive cots!



Why did Daycos prove 12 times better! Rigid control of the synthetic rubber compounds insures uniformly correct surface texture, cushion, friction. It makes Dayco oilproof, static-free, weather-proof, unaffected by hard ends. One-piece construction. Won't groove, hollow out, flatten or distort. Resist eyebrowing. Handle synthetics and blends easily as cotton. Give up to 35.8% fewer ends down, virtual elimination of lap-ups.

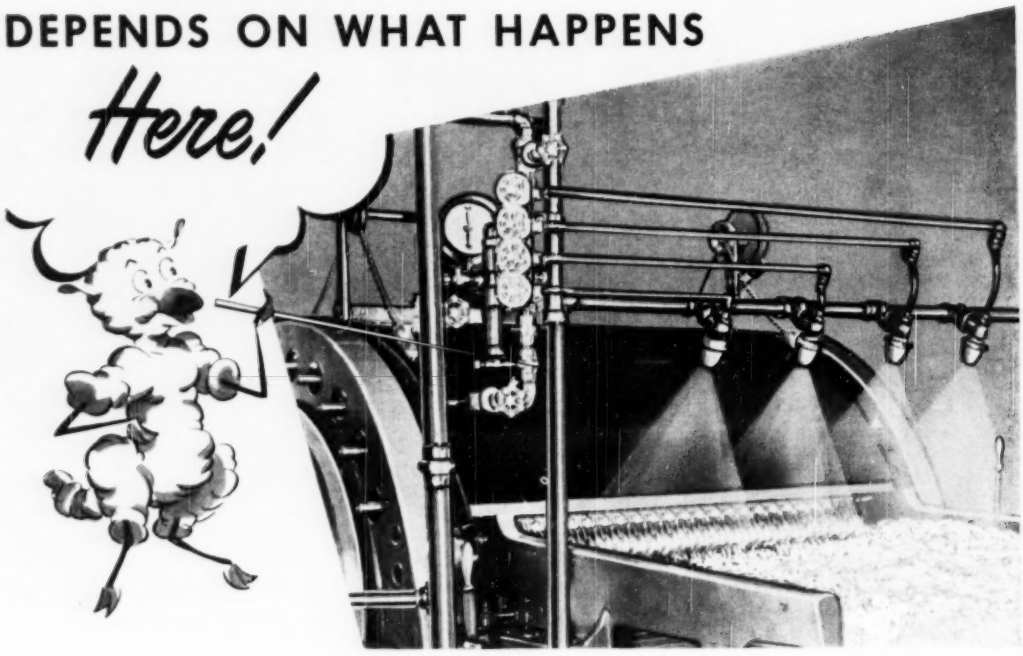
Why not discover Dayco Coverings for yourself, and save thousands in cot costs? Built to your exact specifications in any design and size. For more information write:

THE DAYTON RUBBER COMPANY
Textile Division
Woodside Bldg., Greenville, S. C.

Dayton Rubber

TEXTILE PRODUCTS FOR BETTER SPINNING AND WEAVING

CARDING AND SPINNING *Efficiency* DEPENDS ON WHAT HAPPENS *Here!*



Leading woolen mills wisely select their wool oils with extreme care. The reason, of course, is that they know how much the oil's performance governs the success of the many operations which follow.

A good wool oil, properly applied, can substantially step up carding and finishing efficiency. Its efficient performance is noticeable all down the line—even to the finished goods.

And this explains why woolen mills in increasing numbers are changing to Proxol.

Proxol emulsions are unusually stable. In carding, there's less waste, less static, less fibre breakage, no corrosion. In spinning, there are fewer ends down. You get stronger, more uniform yarns.

Proxol undergoes no change when it's on your wool, yarn or fabric. It won't heat up on storage . . . it develops no odors or discolorations. Its safety matches its efficiency.

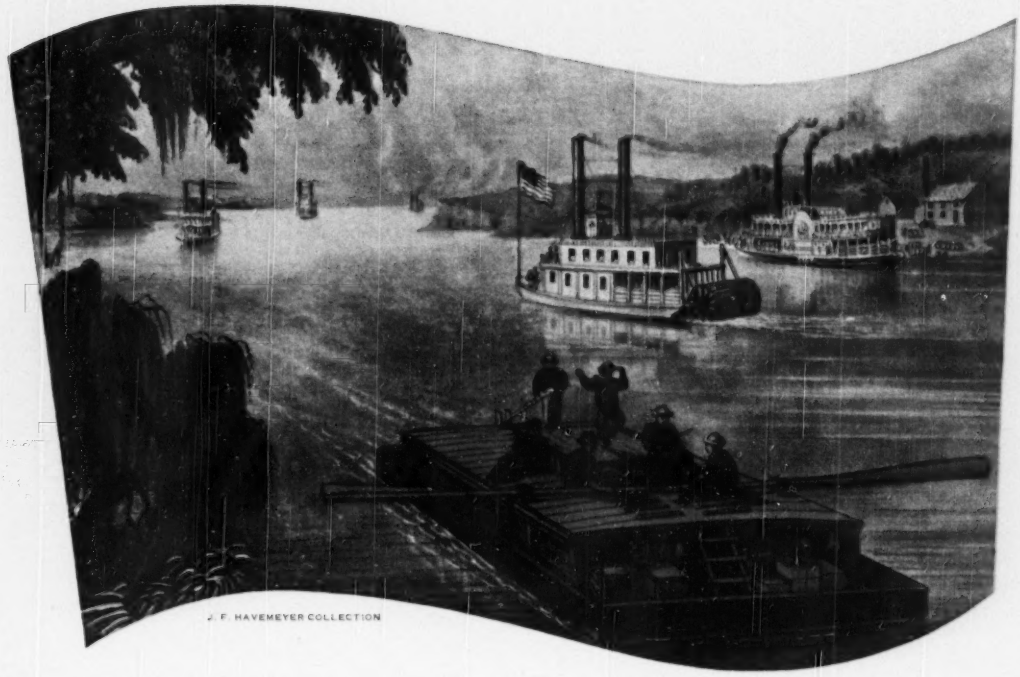
Try Proxol. Its consistent use means smoother operation . . . greater production.

PROCTER & GAMBLE PROXOL MADE IN U.S.A.

Procter & Gamble
CINCINNATI, OHIO

. . . made by the makers of Olate, the safe, efficient, all-purpose textile soap.

Boatmen on the Mississippi must be alert to shoals and shifting currents to get safely to market.
THE ISELIN DIARY, 1859



Take the current when it serves

We must take the current when it serves,
Or lose our ventures.
SHAKESPEARE, JULIUS CAESAR, IV, iii, 222

In 1859, currents in business, too, asked a wary eye of the man piloting a company. For over half a century, Iselin had been helping manufacturers with experienced financial and marketing counsel . . .

Today, our service enables you to take full advantage of favorable business currents—and avoid the shoals of credit losses . . .

You need not lose your venture for lack of adequate funds at the right time.

Our 140 years of financial piloting experience is at your command. Send for booklet on our Factoring service to industry.

William Iselin & Co., Inc.

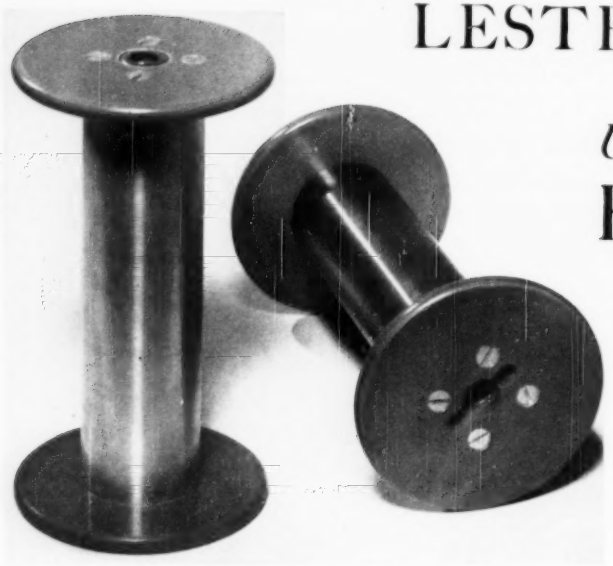
357 Fourth Avenue, New York 10, N. Y.
200 Keeler Building, Grand Rapids 2, Mich.

FOUNDED IN 1808

For Nylon or Other High-Tenacity Yarns Use

LESTERSHIRE

Unit Construction BOBBINS



These Lestershire Unit Construction Bobbins withstand the crushing effect of nylon or other high tenacity synthetic yarns. They give efficient trouble-free processing. They are made from the finest stable materials; included are aluminum, magnesium, or bakelite, and their combinations. They are impervious to steam or moisture content. Whether empty or filled they retain true concentricity.

All parts are machined to closest tolerances: *Concentricity* — .003" T.I.R. — *Spindle Fit* ±.0015"—*Traverse* ±.0025"—*Dynamic/Static Balance* (at slight extra cost) .01 ounce inches. Finished satin smooth to prevent yarn abrasions.

Available in all aluminum, or aluminum with rugged Bakelite head. Almost any size or type of bobbin can be made "Unit" construction.

See them and other Lestershire Bobbins at our booth 713, American Textile Machinery Exhibition, Atlantic City, May 8-12, 1950.

LESTERSHIRE SPOOL & MFG. CO.
JOHNSON CITY, NEW YORK

Branch Offices and Technical Service

R. B. Dorman—1000 Peachtree St., Atlanta, Ga.

Joseph H. Windle, Jr.—231 So. Main Street, Providence 3, R. I.

Odell Mill Supply Co., Greensboro, N. C.

Greenville Textile Supply Co., Greenville, S. C.

W. S. Taylor, Inc., 52 Vanderbilt Ave., New York 17, N. Y.

ALUMINUM TRUCKS at Covington Mills mind neither heat nor humidity

- light weight
- non-staining
- no red rust
- eliminate painting
- high strength
- non-splintering

No warping — no repairs — no rust stained yarns, that's why Covington Mills of Covington, Ga., uses yarn conditioning trucks of Alcoa Aluminum. Even at relative humidities of 90% and temperatures of 180°F., these trucks never need paint or repairs. And workers like the effortless way they handle.

You'd expect these lighter, better trucks to cost much more than steel or wood ones. Yet the prices are competitive.

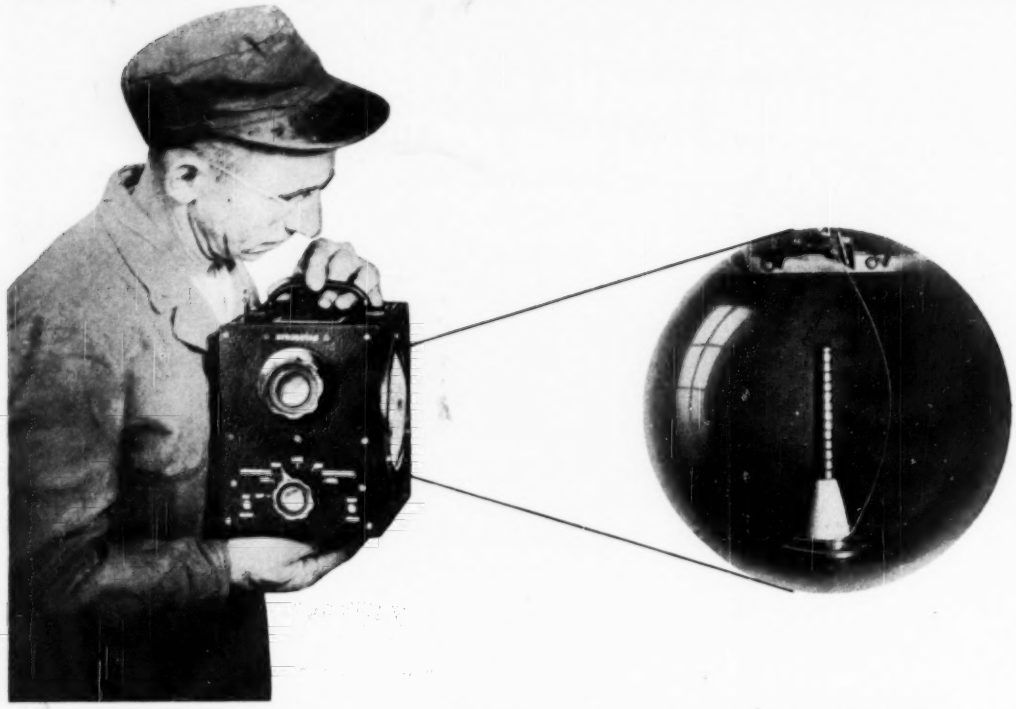
Want to know who makes aluminum trucks? Mail the coupon below to: ALUMINUM COMPANY OF AMERICA, 1990D Gulf Bldg., Pittsburgh 19, Pa.

ALCOA
FIRST IN
ALUMINUM

ALCOA

Gentlemen:
Please send a list of manufacturers making textile materials handling trucks of Alcoa Aluminum.

Name_____
Title_____
Company_____
Address_____



Its Simple to Check Spindle Speeds with the STROBOTAC

IN hundreds of mills, part of the daily routine is to check spindle speeds with the STROBOTAC. No matter how fast they are turning . . . from 600 to 100,000 rpm . . . the flashing light of the STROBOTAC can be adjusted to make the spindle appear to stand still, as in the illustration. The actual speed . . . to an accuracy of 1% . . . is then read from an illuminated dial.

The STROBOTAC . . . a light-weight, portable and easy-to-use instrument . . . has proven invaluable in mills not only to check spindle speeds but also to check their alignment and to observe the action of travellers while speeding around the ring.

In the production of synthetic, silk and worsted yarns an operator can walk along the rayon buckets, spinning or twisting frames and direct the light from the STROBOTAC on each spindle to see if there is any variation which might hurt the quality of output. Spindles out of plumb, bobbins that are crooked, worn or misfit, worn travellers and many other defects can be spotted while the machines are running at normal speed.

The STROBOTAC operates from any 115-volt a-c circuit and can be used by anyone. The price, complete and ready to run, is $125.000.

We believe the STROBOTAC can help you. Without obligation, write for the booklet "STROBOTAC Boosts Efficiency in Woolen and Synthetic Mills"

GENERAL RADIO COMPANY Cambridge 39, Massachusetts

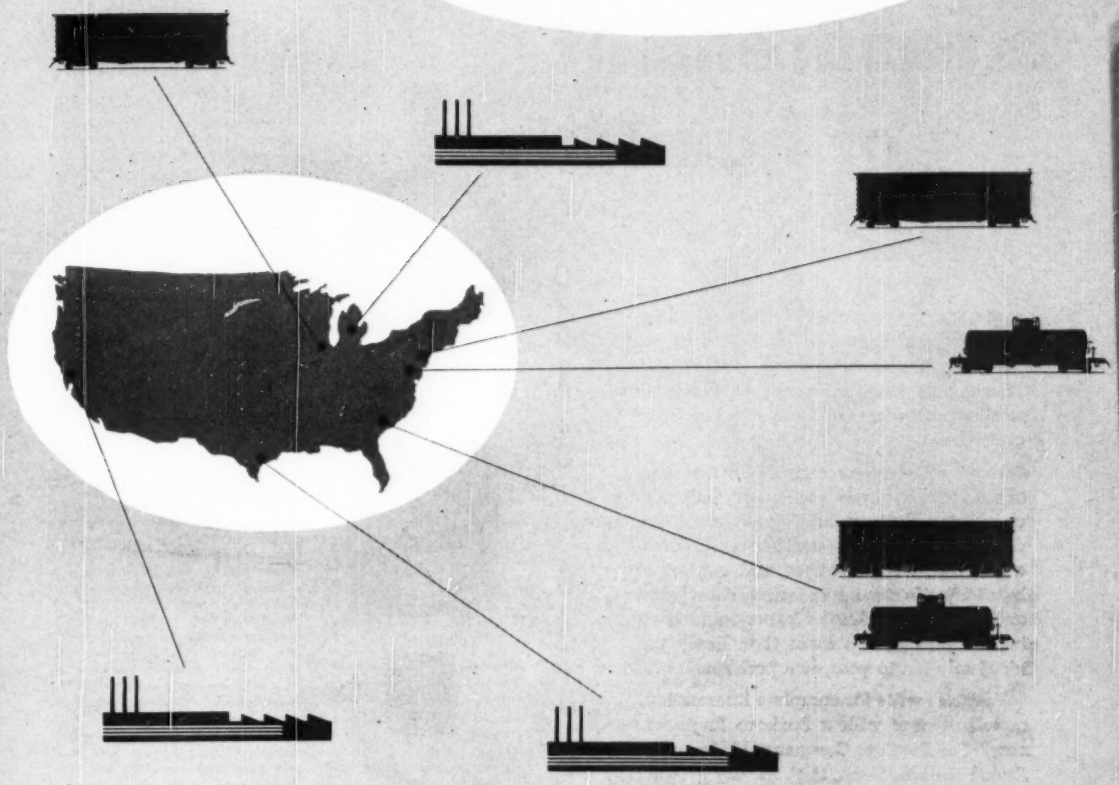
90 West St., New York 6 920 S. Michigan Ave., Chicago 5 1000 N. Seward St., Los Angeles 38

Dow Caustic Soda

serves industry

. . . with unequalled distributing facilities

1. Three producing plants—in Michigan, Texas and California.
2. Caustic Soda Solution bulk tank terminal distributing facilities—Carteret, N. J. and Charleston, S. C.
3. Caustic Soda Solid, Flake and Ground Flake terminal distributing facilities—Chicago, Ill., Charleston, S. C., and Port Newark, N. J.



THE DOW CHEMICAL COMPANY
MIDLAND, MICHIGAN

New York • Boston • Philadelphia • Washington • Atlanta • Cleveland • Detroit • Chicago
St. Louis • Houston • San Francisco • Los Angeles • Seattle
Dow Chemical of Canada, Limited, Toronto, Canada

DOW
CHEMICALS
INDISPENSABLE TO INDUSTRY AND AGRICULTURE

WET AND DRY BULB INSTRUMENTS

These Foxboro instruments give separate wet and dry bulb records on the same chart . . . in dry bulb ranges from 32°F. to 212°F. They are exceptionally accurate and stable. Bulbs can be placed up to 200 feet from the instrument. Available as recorders, or air-operated (Model 40) and electric (Rotax) controllers, including multi-zone and time-humidity controllers.

better measurement of humidity

DIRECT-READING RELATIVE HUMIDITY INSTRUMENTS

Direct-reading relative humidity instruments, in both hair and membrane (gold-beater's skin) types. Sensitive, accurate and reliable.

These Foxboro hygroscopic instruments are designed to operate in temperatures up to 140°F. They are available for indicating, recording (including a portable model), and controlling (pneumatic M-40, or electric Rotax, operated).

Combination temperature and relative humidity recorders (0—100°F and 0—100°R.H.) are shipped from stock.

NO MATTER WHAT the problem, you have at your command a wealth of experience in the application of humidity instruments and instrument systems to textile processes that only Foxboro can offer you.

Ever since it introduced the first successful long-distance wet-and-dry bulb psychrometer, Foxboro has pioneered in the development of new and improved methods for the measurement and control of humidity. In its engineering knowledge and its *complete* line of better-engineered instruments, there's more than likely the ideal solution to your own problem.

Why not write for complete information, or talk it over with a Foxboro Engineer, now? **The Foxboro Company, 18 Neponset Ave., Foxboro, Mass., U. S. A.**

DIRECT-READING DEWPOINT INSTRUMENTS

Foxboro recently introduced the first simple, continuous dewpoint measuring instruments for industrial use. Their humidity sensitive element, the "Dewcel", requires no water box or moving air. Accuracy is unimpaired by dust or lint. Foxboro recording and controlling instruments, used with the "Dewcel", give direct readings from —20°F. to 160°F. *dewpoint*, at dry bulb temperatures up to 220°F. Readings easily converted to absolute or relative humidity.

Foxboro instruments for dewpoint include liquid expansion type and electronic type recorders and controllers . . . with either pneumatic or electric control action. The Multi-Record Dynalog for Dewpoint provides up to 6 records on a single round chart.

FOXBORO HUMIDITY CONTROL

REG. U.S. PAT. OFF.

Improved WARP TENSION CONTROL

Improved!
Heavy Duty
F.M.C. LET-OFF

THE F.M.C. LET-OFF BAND
PAT. NO. 2087189

1 Provides smooth operation at high speeds and eliminates jerky start-ups. Loom stoppage and seconds are reduced and cloth quality is improved.

2 Completely eliminates weights, weight levers, and attachments. Loom alleys can be swept and scrubbed more easily without the possibility of seconds due to bumping the let-offs. No spare weights, etc., clutter aisles, assuring an absolutely safe walk-way.

3 Permits quick-lock release for beam changing. Just pull up the handle and the band comes apart.

4 Provides tension adjustment or let back without the use of wrenches or other tools. When the handle is raised the tension nut is easily adjusted with the fingers, and the beam can be pulled back.

5 Is not affected by changing humidity conditions of the weave room.

6 Requires no lubrication whatever, and will not score or wear beam head drums.

7 Provides more frictional surface resulting in greater holding power with less tension, thereby reducing wear on the band liner.

When requesting samples please submit following information:

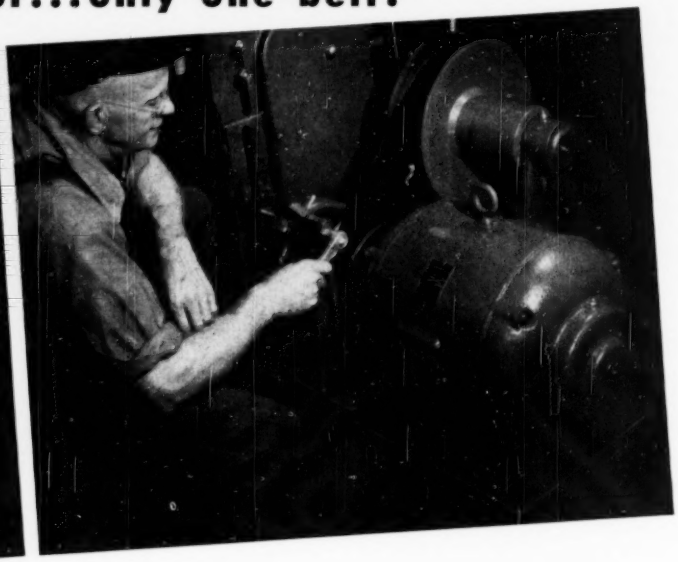
1. Width of the friction flange
2. Circumference of the friction flange
3. Approximate length of chain to anchor band to loom girt or frame

FIBER MANUFACTURING COMPANY
NEWTON, NORTH CAROLINA

Extra! Reeves introduces

NEW Drive for Spinning Frames... provides correct cylinder speed for any yarn set...uses any standard motor...only one belt!

the new REEVES Vari-Spin Drive



Here is an entirely new, simplified, compact drive developed and thoroughly field-tested by REEVES for spinning frame service.

The REEVES Vari-Spin absolutely eliminates the down time and trouble of changing belts and pulleys in order to change cylinder speeds. You merely turn a speed shifting screw without stopping the frame or interrupting production.

Since the drive has "stepless" and infinitely variable speed adjustability within its range—2.5:1—fine gradations in speed may be secured. This enables you to compensate for excessive tension and varying conditions in humidity and temperature, as well as changes for different sizes of yarn.

With the Vari-Spin, you can have better quality control and fewer ends down; also better spinning room production, especially in mills running high yarn counts and in mills running the larger ring frames where the doff is several hours. In general, increases from 10% and upwards are possible.

The drive uses any standard constant speed motor and one belt. It is designed with a minimum of parts. So compact it requires little more space than a standard motor and can be "nested" in the narrowest aisles of most mills. For complete information, write for Vari-Spin Bulletin T24-G501.

REEVES PULLEY COMPANY, COLUMBUS, INDIANA

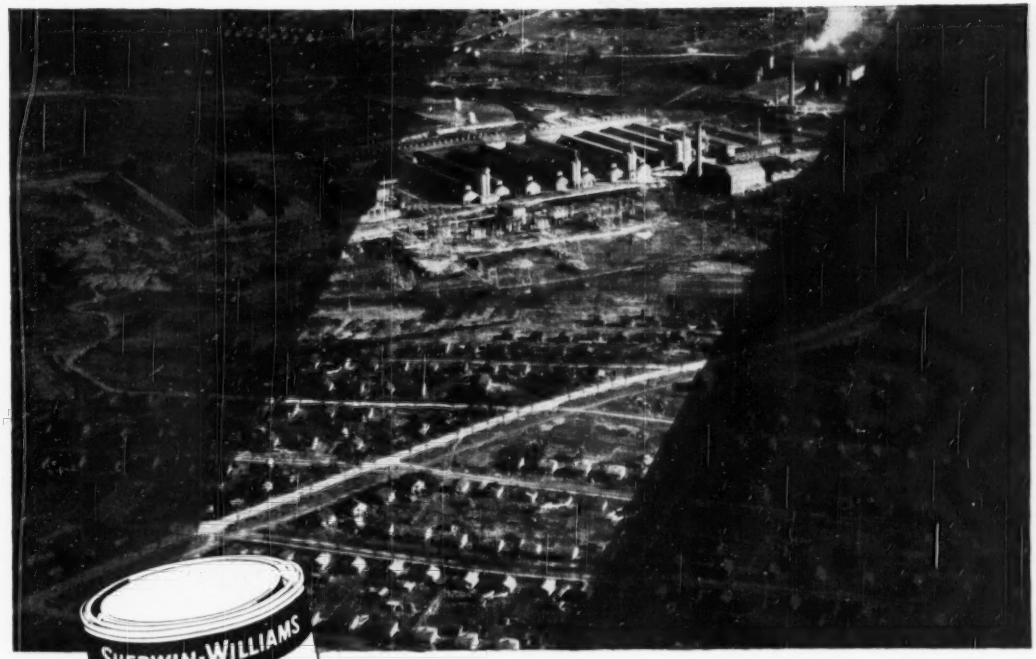
Recognized Leader in the Specialized Field of Speed Control Engineering

ACCURATE • VARIABLE

Reeves Speed Control

GIVES THE RIGHT SPEED FOR EVERY JOB!

See the new REEVES Vari-Spin at the Textile Machinery Show, Atlantic City, May 8-12—Spaces 213, 214, 221, 222



• WRITE FOR COPY of color card showing Sherwin-Williams Mill Village Paint colors for exterior and interior work.

One SURE way

TO CUT MILL VILLAGE UPKEEP COSTS

High-quality, Sherwin-Williams Mill Village Paints offer one SURE way to get full protective value for every dollar spent for maintenance in your mill village.

They are specially developed to meet the most exacting upkeep requirements of both the plant and village. They provide a choice of attractive yet practical colors in top quality paint. CONTROLLED WEATHERING gives longer lasting beauty and protection. HIGH COVERAGE and EASY APPLICATION without sags or brush marks insure lowest possible unit cost.

You'll find everything you're looking for in the complete line of Sherwin-Williams Exterior and Interior Mill Village Finishes, including Xtage Undercoater for uniforming the surface for final coat of Exterior Paint; Velvet Flat and Velvet Enamel for interior walls and trim of village houses; and Save-Lite White and Color Harmony Finishes for the interior of the mill itself.

Ask for color cards and prices. The Sherwin-Williams Co., Charlotte, N. C., Atlanta, Ga., and Cleveland, Ohio.

SHERWIN-WILLIAMS

INDUSTRIAL MAINTENANCE FINISHES

SAVE-LITE MILL WHITE • COLOR HARMONY FINISHES • MILL VILLAGE PAINTS

. . . improve loom operation

Both features are new! The Rhoads TANNATE-ROCKWOOD Loom Drive, illustrated in the larger circle, automatically maintains a constant, uniform belt tension through its double pivoted motor base . . . reduces shock and vibration, and consists of:

NEW DOUBLE PIVOTED ROCKWOOD BASE — **MOTOR PULLEY**
RHOADS RESILIENT TANNATE MOTOR BELT — **INTERMEDIATE SHAFT**
2 INTERMEDIATE SHAFT PULLEYS — **RHOADS TANNATE LOOM BELT**

The Rhoads Bi-Cut* Check Strap, illustrated in the smaller circle, is really tough . . . but flexible enough to resist sudden shock and hard wear; the "Bi-Cut" design with sloping slots allows body of strap to drop, clearing binder bolts and nuts . . . "Bi-Cut" edges flare, accommodating arc of picker stick. "Bi-Cuts" are sorted for weight so that the best dimensions may be supplied for varying loom conditions.

WRITE FOR COMPLETE DETAILS

*TRADE MARK • PATENT APPLIED FOR

STRAPS FOR LOOMS, AND OTHER MECHANICAL LEATHER PRODUCTS

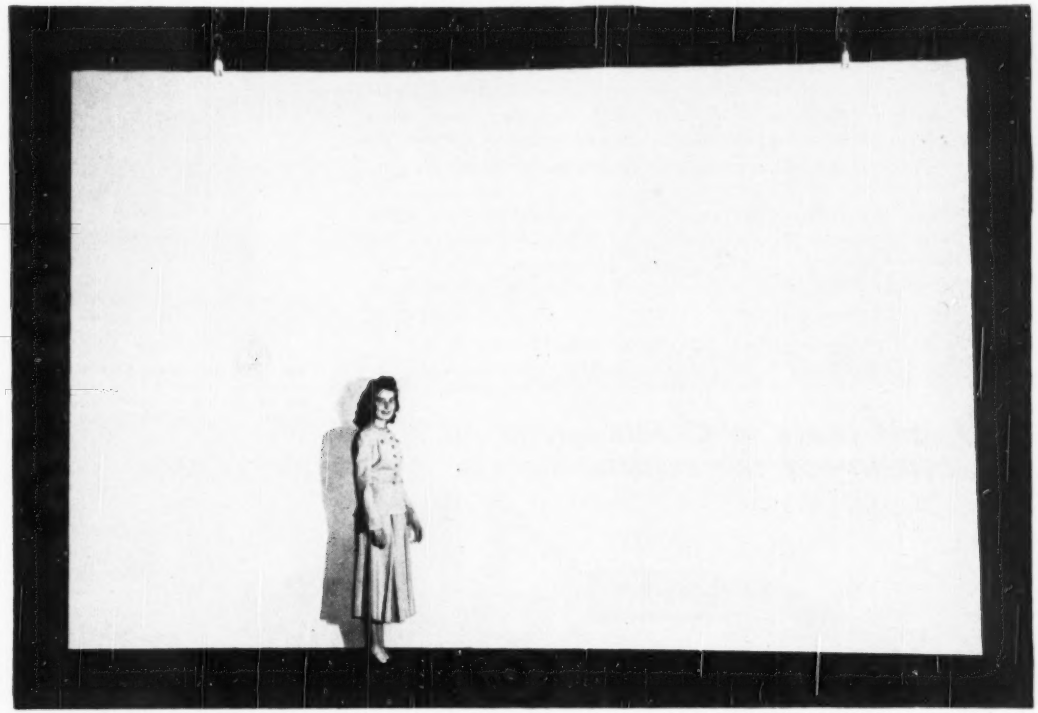
PRODUCERS OF FINE LEATHER FOR 248 YEARS

J. E. RHOADS & SONS

35 NORTH SIXTH ST., PHILA. 6, PA.

NEW YORK • CHICAGO • ATLANTA

Looking for a Stainless Steel Plate as "big as the side of a house?"



THIS 3/8" PLATE IS 220-1/2" LONG, 133-3/8" WIDE. U·S·S 18-8 CB. (TYPE 347)

Come to Stainless Headquarters when your plate specifications call for sizes beyond the ordinary

● We show you this huge plate of Stainless Steel, ⅜" thick, 220½" long and 133⅜" wide, not because we consider it unusual but because there are still some plate users who are not fully aware that Stainless Steel plate in these extreme dimensions is readily available.

The fact is we have been producing such extra-large sizes for some time and can supply even larger if you need them.

So whenever your designs call for large dimension Stainless Steel plates to improve your equipment or to reduce welding costs and simplify fabrication, tell us what you need and give us an opportunity to show you how well we can meet your requirements.

Keep in mind too, that U·S·S Stainless Steel plates are produced in the complete range of standard sizes usually required by industry, in thickness from ¾6" and greater, and are available in all U·S·S Stainless Steel grades.

In whatever size furnished, U·S·S Stainless Steel plates are distinguished for their superior surface quality. Chemical composition and physical properties are reliable. Our Stainless Steel specialists will be glad to cooperate with you in applying them to your construction to insure optimum results with minimum cost.

AMERICAN STEEL & WIRE COMPANY, GENERAL OFFICES: CLEVELAND, OHIO · CARNEGIE-ILLINOIS STEEL CORPORATION, PITTSBURGH & CHICAGO
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Crane Cast Steel Wedge Gate Valves find wide application wherever exceptionally rugged and durable steel valves are required. Body and bonnet have heavy metal sections and ample reinforcements at points under greatest stress. Straight-through ports assure minimum turbulence, erosion, and resistance to flow.

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CRANE CO., 836 S. Michigan Ave., Chicago 5, Ill.
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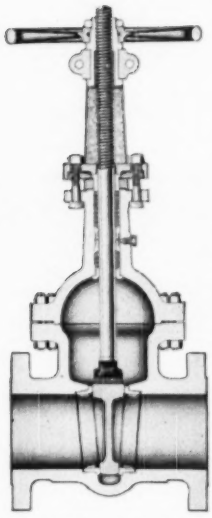
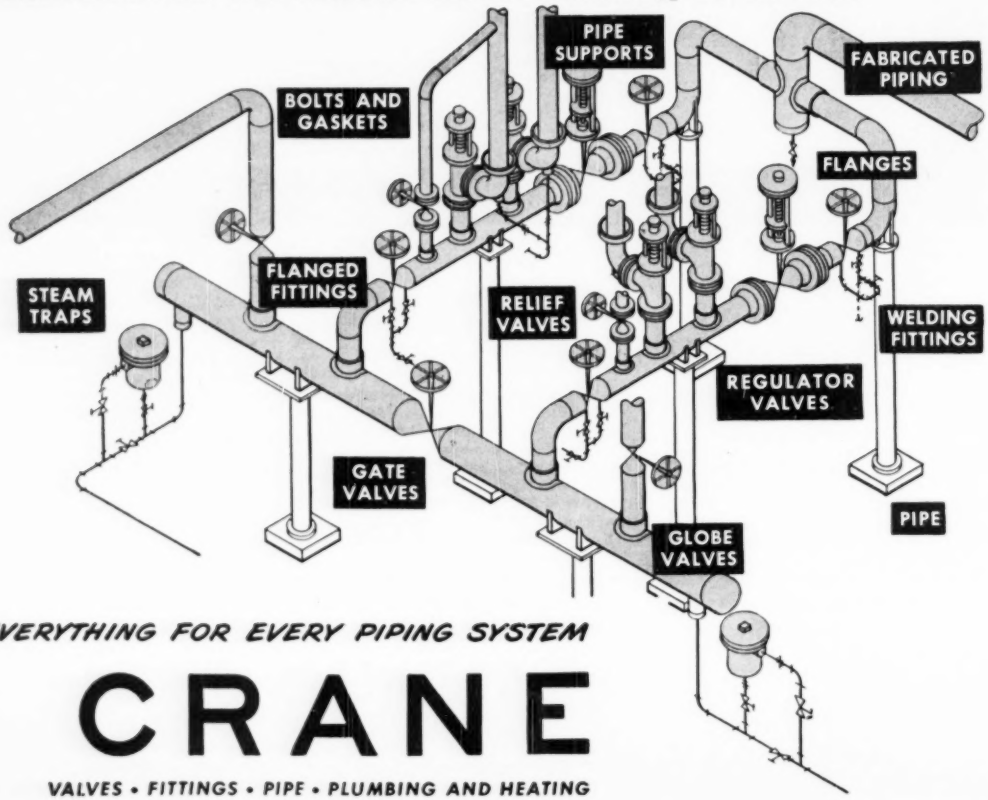


No. 33XR, 300-Pound Steel Gate for steam up to 850°F.; for water, oil, air or gas up to 500°F. Exelloy to Nickel Alloy seating. Sizes: 1½ to 24 in.

ONE ORDER TO CRANE COVERS ALL PIPING EQUIPMENT FOR THIS PRESSURE REDUCER STATION, FOR EXAMPLE



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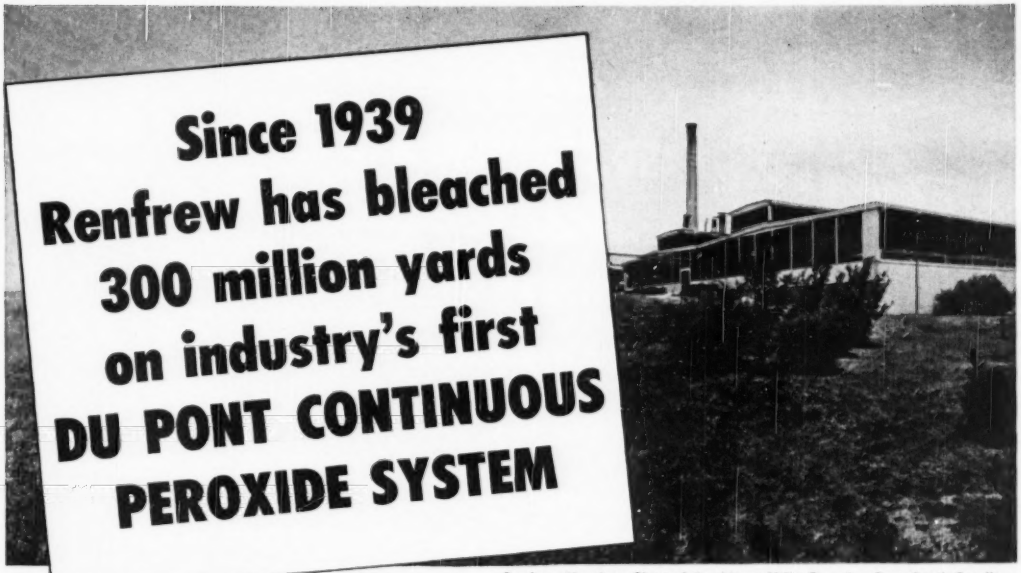
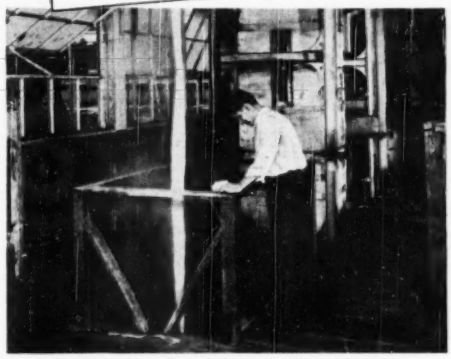
Since 1939 Renfrew has bleached 300 million yards on industry's first DU PONT CONTINUOUS PEROXIDE SYSTEM



Renfrew Bleachery Plant of the Abney Mills, Travelers Rest, South Carolina



Du Pont 2-Stage Rope Unit in operation at Renfrew

Oldest commercial installation has processed 600,000 to 700,000 yds./wk. for over 10 years!

When Du Pont introduced Continuous Peroxide Bleaching in 1939, Renfrew was the first bleachery to install the new system. In the decade since, their original 2-stage rope unit has handled a wide range of textiles at its capacity of 1,500 lbs. per hour. Print cloths, sheetings, diaper cloth and other types have been processed continuously with only minor adjustments necessary.

Renfrew has found that they can handle a large volume easily and get consistently excellent results. They report that the speedy, high quality bleaching possible with their Du Pont system has brought them considerable savings in chemicals, steam and operating costs.

Continuous peroxide bleaching is practicable and economical for small, medium or large operations. But why not investigate Du Pont Continuous Peroxide Bleaching yourself? See how easy it is to set up, operate and control. Send the coupon below for our new book which illustrates many typical installations.

TO BLEACH MORE GOODS QUICKLY AND ECONOMICALLY

There's a Du Pont System to meet your specific requirements. Du Pont technical service men will help you select equipment and start up your process. Just write E. I. Du Pont de Nemours & Co. (Inc.), Electrochemicals Dept., Wilmington 98, Delaware.

Tune in Du Pont "Cavalcade of America" Tuesday nights—NBC coast to coast

DU PONT
CONTINUOUS PEROXIDE BLEACHING

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Let Ashworth Advisory Service help you select the best metallic wire or flexible card clothing for the job.

AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

ASHWORTH BROS., INC.

American Card Clothing Co.
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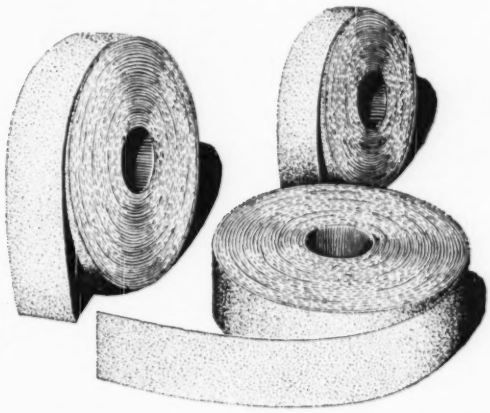

Answering an annoying problem

TEXALOX Metallic Cloth is a take-up roller covering by CARBORUNDUM which puts a stop to costly slippage and uneven tension on fabric.

The surface of TEXALOX cloth has unusual gripping property. It does not become polished or slippery because it is composed of diamond hard (but not sharp) granular projections which are covered with a coating of metal. These projections grip the fibres, drawing them firmly and gently without vibration. The action is so soft, and slip so minimized, that there is no evidence of cut or chafed fibre. It minimizes damage to the material be it silk, rayon, acetate, cotton, wool or any other material.

TEXALOX cloth has proved itself worthy of your investigation by its excellent operating performance. Why not talk it over with your CARBORUNDUM representative soon? Coated Products Division, The Carborundum Company, Niagara Falls, New York.

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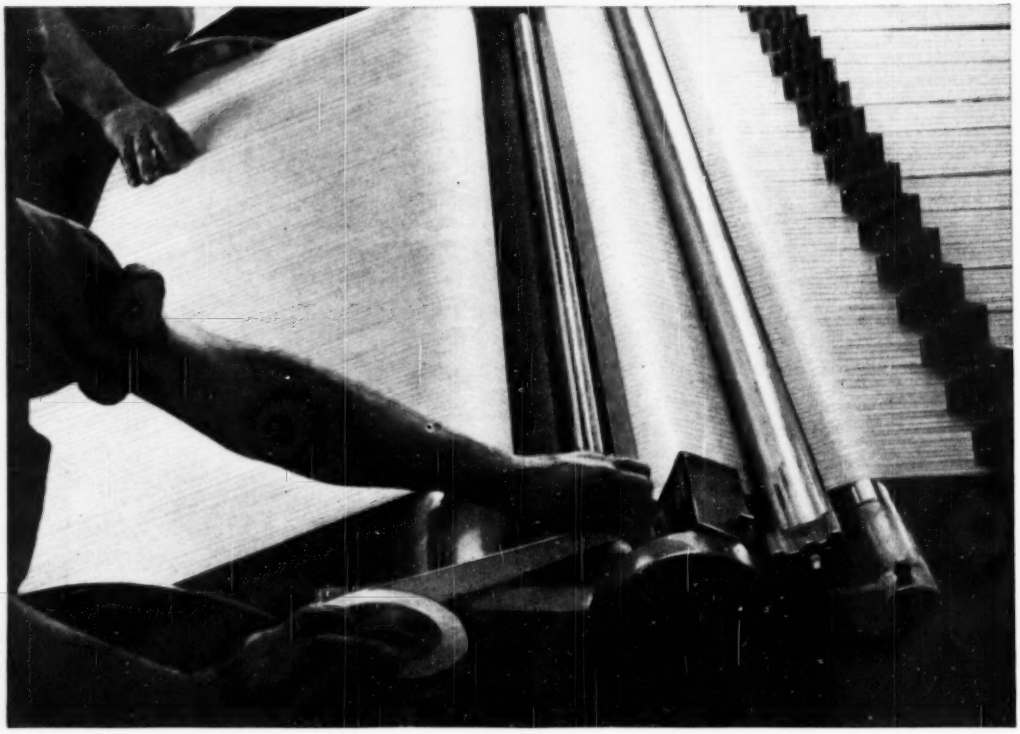

Slashing costs cut $7,000!

Securing warp threads with "SCOTCH" Textile Tape No. 250 is saving one manufacturer as much as $7,000 a year. Actual records show this easy-to-handle tape saves .463 pounds of thread per beam. And production officials testify that the savings in reduced machine and labor time are even higher!

Are you taking advantage of this cost-cutting material in your plant? It's fast, neat, strong, economical. Mail coupon below for complete information about "SCOTCH" Textile Tapes. No obligation.

Minnesota Mining & Mfg. Co.,
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Please send a copy of your cost-cutting tips with "SCOTCH" Textile Tapes.

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FREE BOOKLET shows how "SCOTCH" Textile Tapes simplify and improve production operations. Whether you're weaving, spinning, slashing, carding, warping, knitting or finishing—there's a tape designed to your specifications. Mail coupon today!

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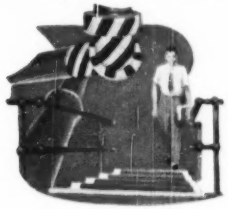
BETTER SEEING CONDITIONS! Application of Du Pont Color Conditioning in a sewing room at Great Barrington Mfg. Company, Great Barrington, Mass., provides workers with the correct degree of "brightness" within the working area, helps them see better, feel better, work better.



SAFETY! Colors and symbols of the Du Pont Safety Color Code quickly identify first-aid and fire-protection equipment . . . "paint up" hazardous areas . . . help prevent personal injury.

MORALE! Throughout your buildings . . . in rest rooms, washrooms, offices, corridors, etc., COLOR CONDITIONING imparts an agreeable, efficient atmosphere. Pleasant surroundings give workers a "lift" . . . pay off in better work.

SERVICE! A Du Pont maintenance painting expert is ready to discuss COLOR CONDITIONING with you. He will show you how this scientific painting plan can be applied to your buildings . . . without added cost.

DU PONT COLOR CONDITIONING INCREASES EFFICIENCY!

NOW, at no increase over the cost of normal maintenance painting, you can have all of the benefits of scientific Du Pont Color Conditioning for your plant . . . better seeing conditions, increased quantity and quality of output, better employee morale, lowered accident rates!

Actually, in the long run, Color Conditioning costs *less* than the old-fashioned system of plant painting. For Color Conditioning utilizes light and color *correctly* to make maintenance painting pay extra dividends. No mere theory, Color Conditioning is being proven daily, in thousands of industrial plants, from textile mills to foundries, in old and new buildings.

Why not let a Du Pont paint salesman tell you the complete Color Conditioning story, and discuss the proper use of durable, pre-tested Color Conditioning Paints, Safety Color Code and Machinery Enamels throughout your building and on your equipment? Simply mail the coupon below.

DU PONT

BETTER THINGS FOR BETTER LIVING . . .
THROUGH CHEMISTRY

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Finishes Division, Dept. F-911
Wilmington 98, Del.

Please send me, without obligation, your 32-page book, "Color Conditioning for Industry."

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We invite you to see our complete line of Herr CONICAL Rings and Fliers at Booth 84-85, Atlantic City Show—May 8th-12th.

Herr CONICAL Rings can be seen in operation at Saco-Lowell Shops exhibit running on their Draft-All Spinning Frame. Also at the Whitin Machine Works booth running on an F-2 Whitin Spinning Frame designed for worsted yarns and blends on the American system

HERR MANUFACTURING CO., Inc.

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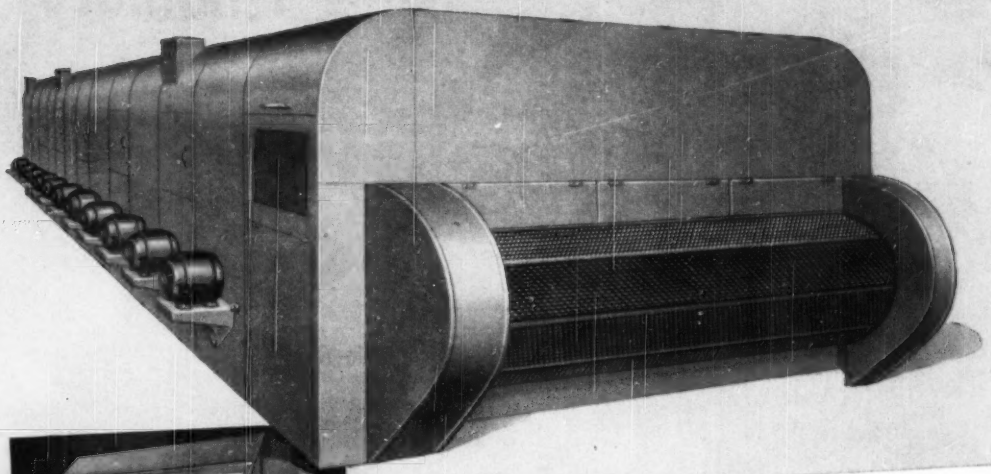
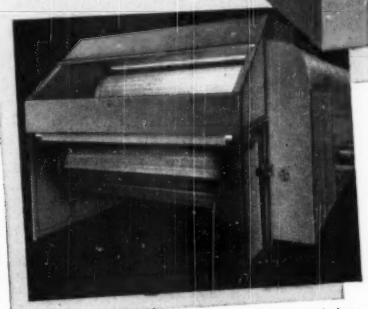
SARGENT'S STOCK DRYER

MODERN—AUTOMATIC





The new, Fisher Type Rotary Feed which has replaced the conventional spiked Apron Type Feeder

for Drying Wool, Cotton, Rayon, Other Synthetic Fibres, Rags

The Sargent Automatic Stock Dryer meets all modern requirements of textile mills for fast, trouble-free production, at minimum cost.

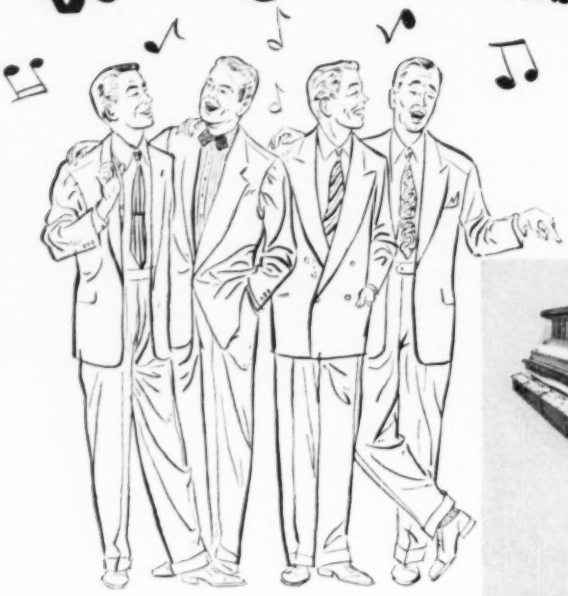
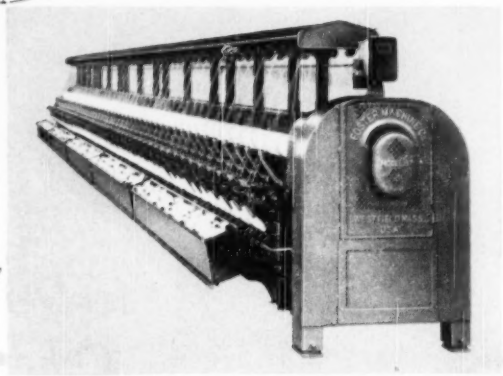
Its high-velocity, pressure-type fans are directly connected to standard frame, ball-bearing motors. The machine is vibration-free. Stock is carried on the Conveyor of heavy-gauge steel sectional flights which are built to specifications for the type of work required. The Conveyor presents a constantly smooth surface, traveling on a variable-speed, covered chain drive. Some of its other features include: highly efficient heating coils; low steam consumption; heavily insulated removable hinged panels for easy inspection of work in travel; thermostatic controls; ease of cleaning; a minimum of maintenance cost.

The machine's streamlined design affording a maximum area of drying surface, requires unusually small floor space for the volume of its high production.

Please write us for complete details.

C. G. SARGENT'S SONS CORPORATION

GRANITEVILLE, MASSACHUSETTS, U.S.A.

Doubling's not Troubling Anymore...



. . . Today, progressive yarn manufacturers WELCOME the doubling process as a means to better quality *and* better prices. Doubling eliminates dropped ply, corkscrew yarns, and permits proper inspection — removing slubs and other imperfections. Also, doubling makes for uniform tension on all ends — assures a uniform twist.

The Foster Model 57 Doubler does all this with minimum trouble and expense. Here's why:

1. It has a tension and slub catching device for automatic inspection and uniform tension on multiple threads. This is used when machine is equipped for one process doubling, drawing direct from bobbins, and permits doubling of coarse and fine yarns together with exact control of inspection at each bobbin. When used for two-process doubling the Model 57 draws from cones wound and inspected on the Model 102.

2. Ends are laid parallel on the package, which also makes for even twist.

3. Quick-acting stop motion, with efficient brake, leaves sufficient yarn for single end piecing when supply runs out.

It will pay you to investigate the many additional features of the Model 57, not the least of which are the exceptionally high operating speeds that can be obtained without loss of quality.

Send for Circular A-96, today.

FOSTER MACHINE COMPANY
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Southern Office — Johnston Bldg., Charlotte, N. C.
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For Better Twist by Doubling

may we serve you, too?

...Warp Sizes for Natural and Synthetic Fibers ...Starches, Dextrines, Gums and Resins for Finishing ...Printing Thickeners for All Types of Colors.

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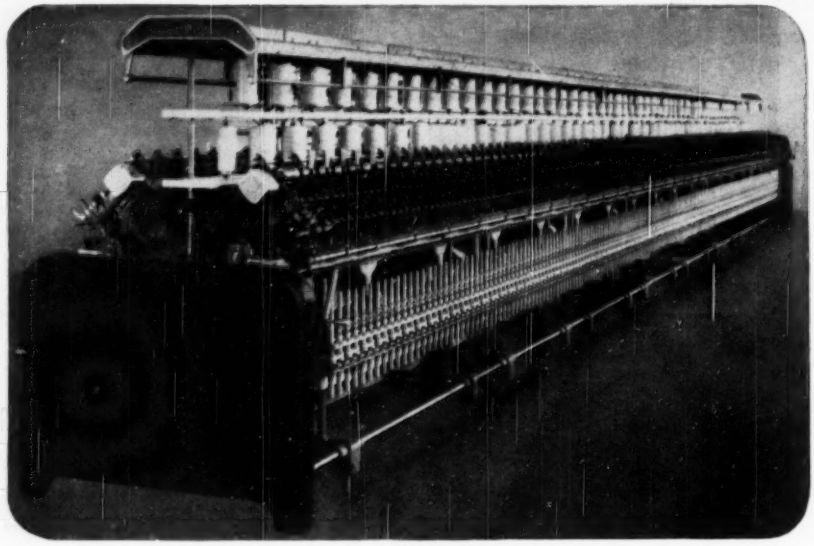
THE YEARS HAVE PROVEN THEIR QUALITY!



New type spinning frame with stationary ring rail providing absolute balloon constancy.

Worsted
Combing and Spinning Machinery
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For over 25 years, our French-system machines have been at work in over 150 mills throughout the world...combing and spinning wool, ramie, rayon, synthetic fibres and blends. Their superlative performance and increased usage are due to two factors: *first*, the know-how that results from 25 years of concentration exclusively on machines of this type . . . and *second*, the superb craftsmanship of our technicians and workers. May we suggest you permit our technical staff to show you how our machines may be adapted to solve your particular problems. Prompt deliveries, installation and servicing are assured.

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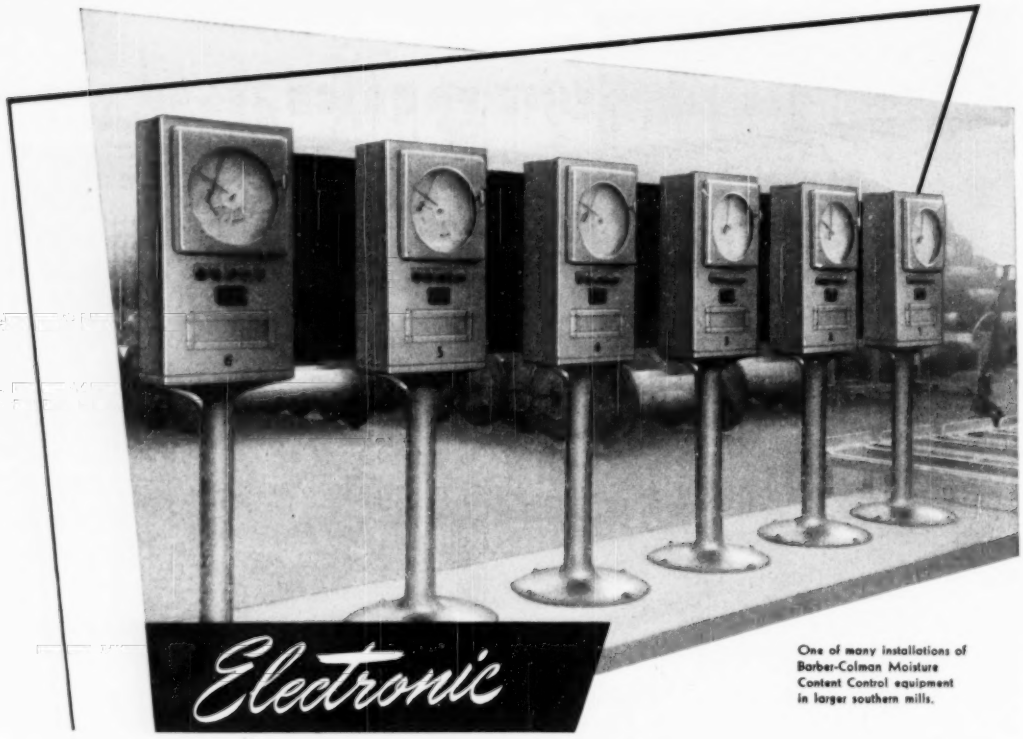

One of many installations of Barber-Colman Moisture Content Control equipment in larger southern mills.

Electronic MOISTURE CONTENT CONTROL

Barber-Colman *all-electronic* units are applicable to all types of warps processed on slashers having any type of variable-speed drive. This automatic Moisture Content Control is a proportioning type instrument, equipped with automatic reset to control at a constant level so there is no "hunting" in the changes of the variable-speed drive. Let your Barber-Colman representative show you how to obtain—

LOWER COSTS • GREATER PRODUCTION • BETTER PRODUCTS

BARBER-COLMAN ENGINEERING SERVICE IS BACKED BY YEARS OF EXPERIENCE IN TEXTILE PROCESS CONTROLS

BARBER COLMAN

BARBER-COLMAN COMPANY, Rockford, Illinois

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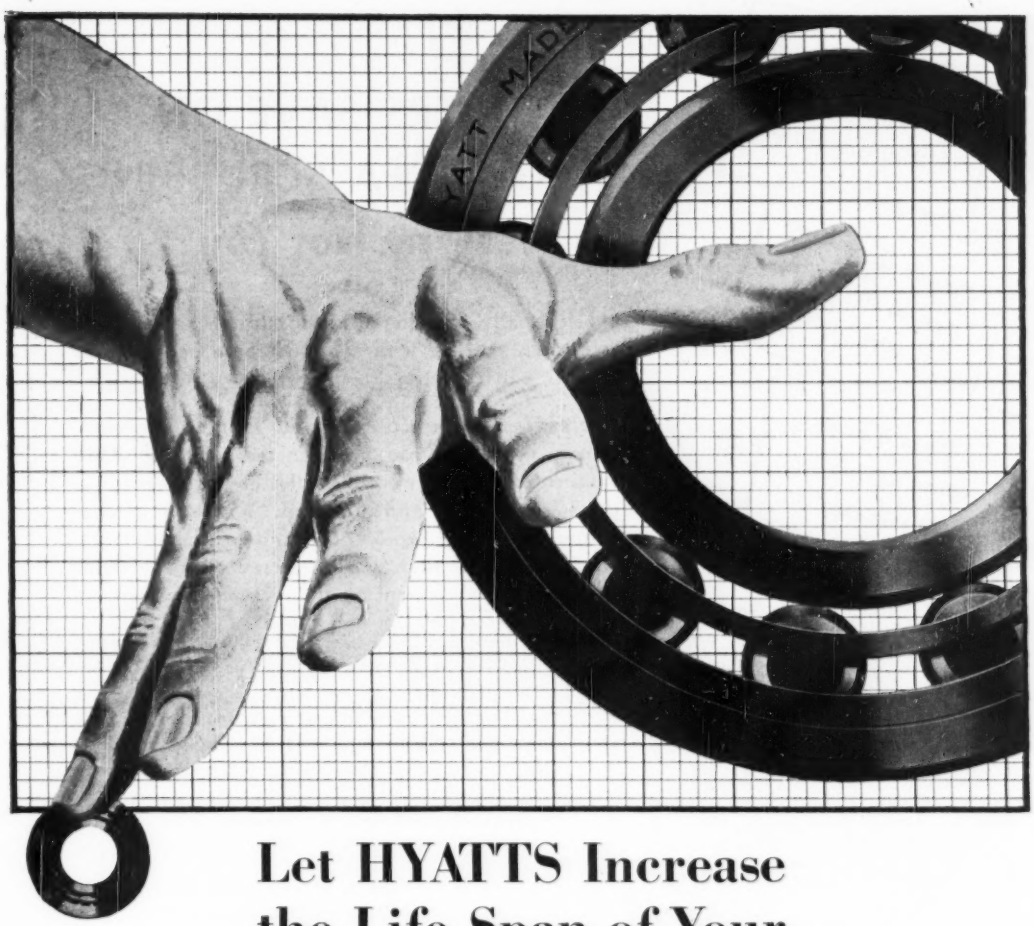

Let HYATTS Increase the Life Span of Your Looms and other Machinery

You know that wheels, gears and shafts must operate smoothly, accurately and quietly to be efficient.

You get all these advantages today with Hyatt equipped machines and can enjoy them for years to come too because of the longer life built into the machines in the first place.

And with Hyatt Roller Bearings at all vital operating positions you can have the assurance of dependable machine operation.

With Hyatts you eliminate bearing wear and care—your power costs are reduced and more and better cloth is produced at less expense. Hyatt Bearings Division, General Motors Corporation, Harrison, N. J.

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MAY 8-12, 1950
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See our Exhibit in Space 292 and 293, At The Auditorium

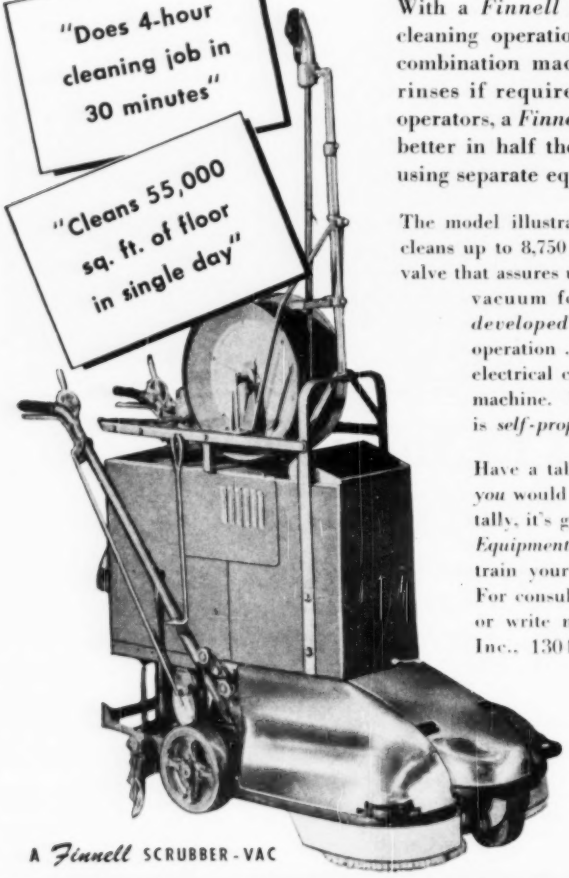
HYATT ROLLER BEARINGS

"Cuts our cleaning costs more than $1200 annually"

"Cleans floor area size of city block in 6½ hours"

"Does 4-hour cleaning job in 30 minutes"

"Cleans 55,000 sq. ft. of floor in single day"



A *Finnell* SCRUBBER-VAC

OTHERS SAVE ON LARGE-AREA SCRUBBING ...Why Not You?

Now especially, with the need for cutting costs, savings such as are possible with a *Finnell Scrubber-Vac* are well worth investigating.

With a *Finnell Scrubber-Vac*, all four of the floor-cleaning operations can be done mechanically! This combination machine applies the cleanser, scrubs, rinses if required, and picks up. With one or two operators, a *Finnell Scrubber-Vac* can do a cleaning job better in half the time it takes a crew of six to eight using separate equipment for the several operations.

The model illustrated below, for heavy duty requirements, cleans up to 8,750 sq. ft. per hour. Has new type of water valve that assures uniform flow of water . . . ⅓ more powerful vacuum for more efficient pickup . . . a *Finnell-developed* trouble-free clutch, affording effortless operation . . . improved waterproof wiring and fewer electrical connections, simplifying the cleaning of the machine. Vacuum performs *quietly*. The machine is *self-propelled*.

Have a talk with *the nearby Finnell man*. See what *you* would save with a *Finnell Scrubber-Vac*. Incidentally, it's good to know that when you choose *Finnell Equipment*, a *Finnell* man is readily available to help train your maintenance operators in its proper use. For consultation, demonstration, or literature, phone or write nearest *Finnell Branch* or Finnell System, Inc., 1304 East Street, Elkhart, Indiana. Branch Offices in all principal cities of the United States and Canada.

Everything for Floor Care FINNELL

FINNELL SYSTEM, INC.

Pioneers and Specialists in

FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

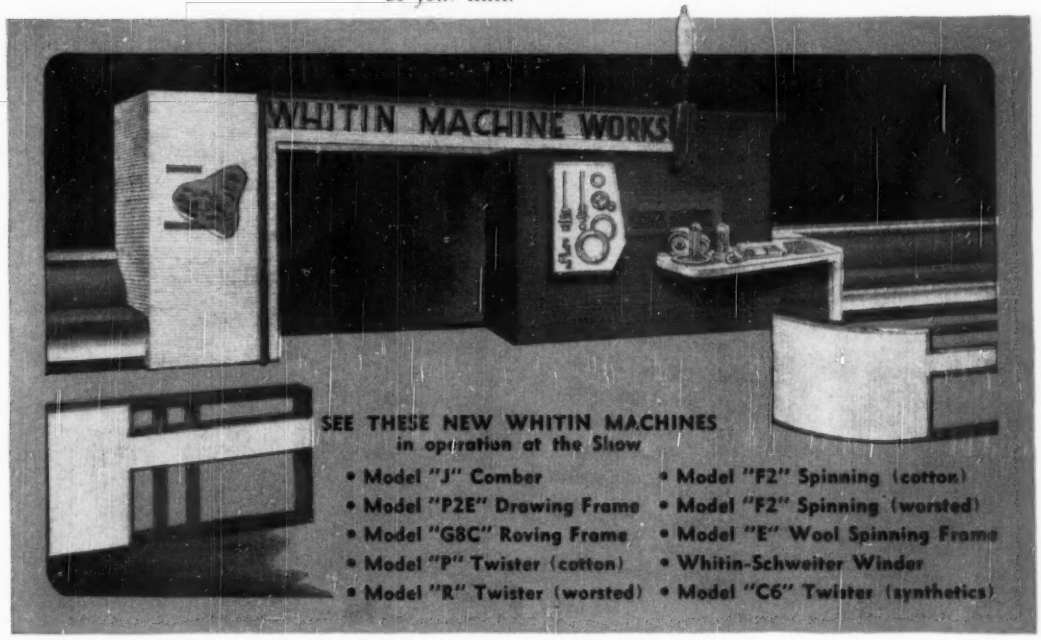
BRANCHES IN ALL PRINCIPAL CITIES

Doorway to the Mill of Tomorrow

WHEN you pass through the doorway of the Whitin Booth at The American Textile Machinery Exhibition*, you'll see, in operation, preparatory machinery designed to speed production, improve quality and cut costs in the textile mills of tomorrow.

Whitin research men and engineers have, over a period of years, combined their efforts to develop and perfect these machines . . . to make them more efficient and more versatile in handling the entire range of natural and synthetic fibers.

We cordially invite you and the members of your production staff to visit our exhibit . . . to see for yourselves what *we* have accomplished in the development of new machinery to make possible the more profitable operation of *your* mill.


WHITIN MACHINE WORKS
SEE THESE NEW WHITIN MACHINES
in operation at the Show
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• Model "P2E" Drawing Frame
• Model "G8C" Roving Frame
• Model "P" Twister (cotton)
• Model "R" Twister (worsted)
• Model "F2" Spinning (cotton)
• Model "F2" Spinning (worsted)
• Model "E" Wool Spinning Frame
• Whitin-Schweiter Winder
• Model "C6" Twister (synthetics)

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AMPROZYME

Immediately Converts Both Starches and Proteins

IN ONE OPERATION!

Amprozyme eliminates the guess work from de-sizing. Because, Amprozyme immediately digests either or both starches and proteins in one and the same operation. If the size is starch, Amprozyme's amylolytic enzymes go right to work. If a protein size is present, its proteolytic enzymes start attacking. By digesting either starches or proteins, or both, at the same time and in the same operation, Amprozyme eliminates the necessity for two different agents or two separate operations.

Double acting Amprozyme is a highly concentrated powder that does a better, more effective de-sizing job in a shorter time. It can be utilized at normal or elevated dye box temperatures, in a wide pH range. It insures rapid and complete de-sizing of cottons, rayons, and mixed goods, resulting in a good hand and uniform ground for perfect dyeing, without streaks or shading. Using Amprozyme reduces storage, handling and shipping costs. Amprozyme also remains stable longer. There's no loss through spillage.

For complete information and a sample for a test run contact us today!

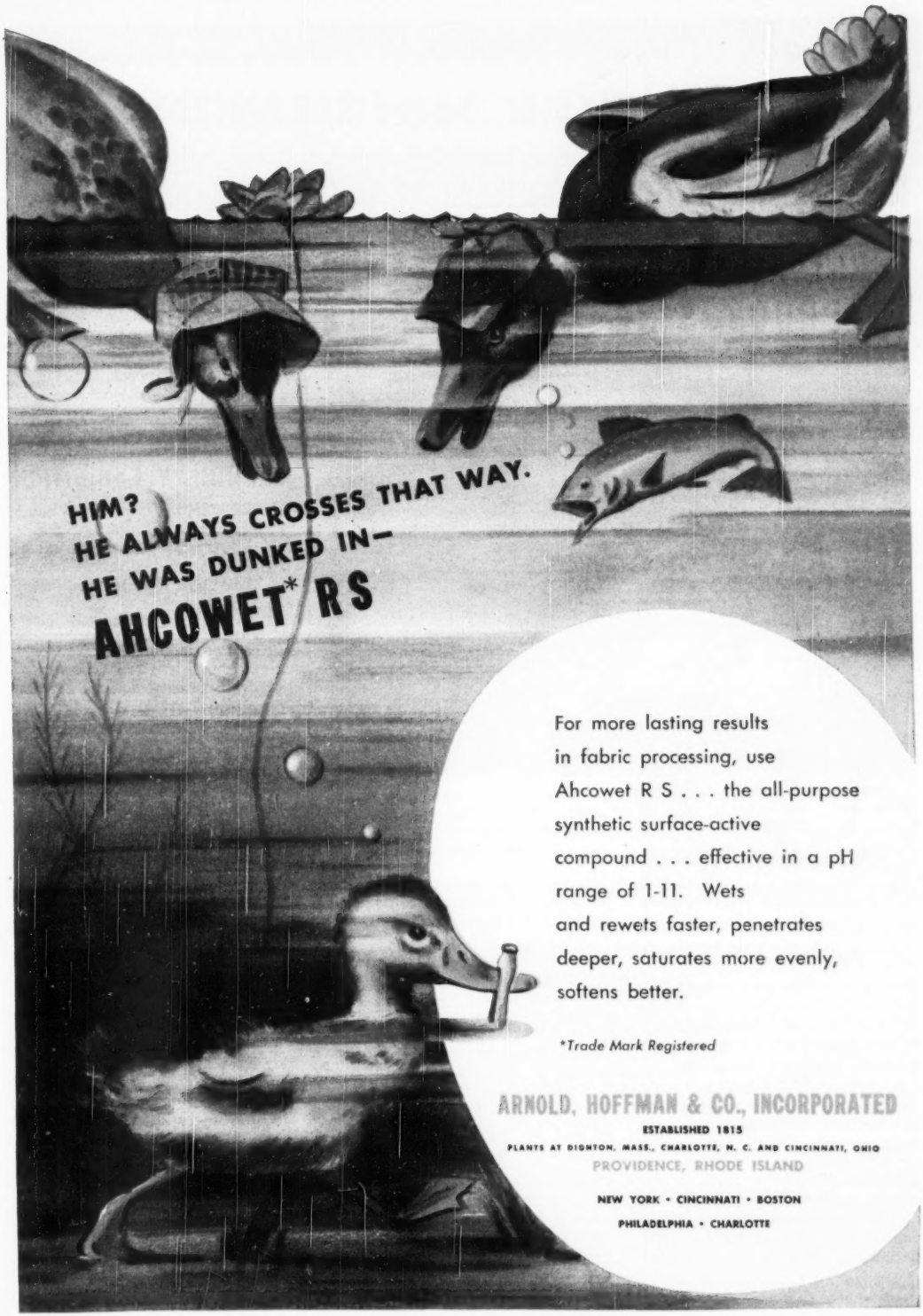
WOLF BRAND CHEMICAL SPECIALTIES

JACQUES WOLF & CO.

Chemicals **PASSAIC, N. J.**

Manufacturers of Monopole Oil, Superclear, Hydrosulfites, Oratol L-48, Lomar PW, and other chemical specialties

Passaic, New Jersey
Carlstadt, New Jersey
Los Angeles, California



For more lasting results in fabric processing, use Ahcowet R S . . . the all-purpose synthetic surface-active compound . . . effective in a pH range of 1-11. Wets and rewets faster, penetrates deeper, saturates more evenly, softens better.

*Trade Mark Registered

ARNOLD, HOFFMAN & CO., INCORPORATED

ESTABLISHED 1815

PLANTS AT DIGHTON, MASS., CHARLOTTE, N. C. AND CINCINNATI, OHIO

PROVIDENCE, RHODE ISLAND

NEW YORK • CINCINNATI • BOSTON

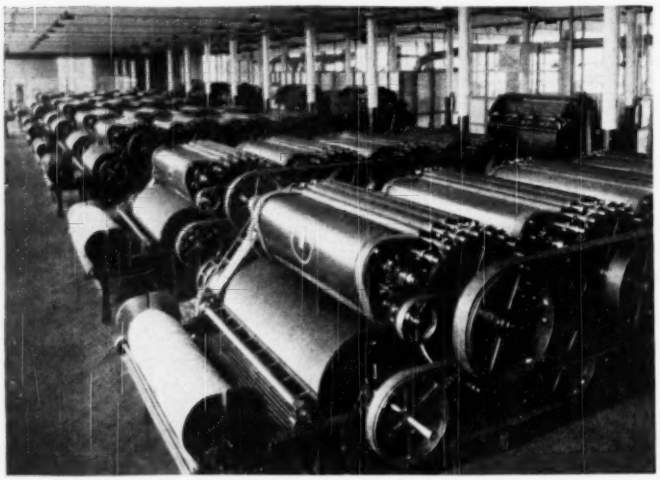
PHILADELPHIA • CHARLOTTE

TEXTILE MACHINERY and

PUBLISHED BI-MONTHLY FOR TEXTILE MILL EXECUTIVES AND OPERATING PERSONNEL BY PROCTOR & SCHWARTZ, INC.

• APRIL • 1950 •

PROCTOR GARNETTS PROVE ANSWER TO PROCESSING NYLON WASTE



With the ever widening use of nylon and other synthetics, it is natural that waste plants are today encountering an increasing amount of nylon in the material that comes to them for reprocessing.

With the coming of increased amounts of nylon and other synthetics, has come an increase in problems of the reprocessor. Garnetting, particularly in the earlier days of handling nylon, has been troublesome.

Working closely with processors, Proctor engineers have been able to design Proctor waste pickers and garnetts ideally suited to the problems of handling nylon and other synthetic fibers. With a long background of experience in the design and building of garnetts for use in the reworking of woolen, worsted and cotton threads, Proctor engineers were in an excellent position to find the answer to the problems of garnetting nylon and other synthetic fibers.

Modern Proctor equipment is available for the efficient handling of waste of all types—both for picking and garnetting. As a matter of fact, Proctor engineers have designed and built a very large percentage of all of the so-called shoddy garnetts and pickers in operation in this country today. These machines may be designed in any of the sizes required, from a small, single cylinder machine to the larger ones, such as are shown in the photo.

For any waste reprocessing problem—including nylon—consult with Proctor engineers. Their experience will enable them to recommend equipment ideally suited to your individual requirements.

Much Proctor drying machinery and textile equipment is covered in full or in part by patents or patents pending.

MARK YOUR CALENDAR *NOW* *to visit us at* AMERICAN TEXTILE MACHINERY EXHIBITION

The week of May 8 to 12 may seem a long way off as you read this—but now is none too soon to make plans to be in Atlantic City for the American Textile Machinery Exhibition.

At Proctor & Schwartz, we are taking this exhibit seriously and are planning to present a comprehensive picture of modern Proctor equipment for the textile industry.

Automatic blending equipment will be in operation, as well as a modern Proctor metallic worsted card. Automatic stock conveying systems will be highlighted.

The Dryer Division of the Company will highlight recent developments, including the much discussed Redman process, the Vat-Craft dye process, nylon setting equipment, the continuous bleach system and the Dalglish overfed pin tenter.

Proctor engineers will be on hand at all times during the week to discuss individual problems with textile men visiting the exhibit.

Plan now to see us—it's the first major textile show in twenty years—and a lot has occurred in this fast moving industry.

DRYING EQUIPMENT *News*

NEW PROCTOR *Check Test* PREBOARDING MACHINE

simplifies testing stockings in the Griege

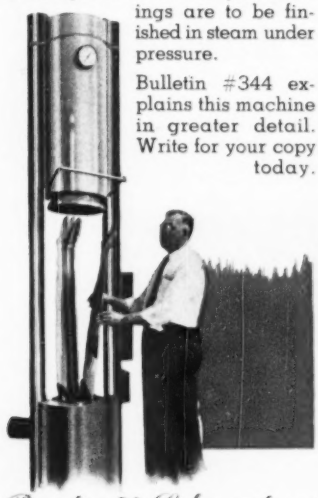
The newly developed, compact, Proctor Check Test Preboarding Machine, comes as the answer to a long standing need in many hosiery mills.

By use of this new equipment, it is possible for the manufacturer to obtain a quick check on how stockings will appear after preboarding—without wasting the time to take a stocking to the preboarding room and process it on a full scale preboarding machine.

This is particularly helpful to the manufacturer whose preboarding department is not in the same building with knitting—or perhaps is located in another city.

The new machine also provides a quick means for checking shades in the dye house where dyed stockings are to be finished in steam under pressure.

Bulletin #344 explains this machine in greater detail. Write for your copy today.



VERSATILITY MARKS PROCTOR EQUIPMENT FOR NYLON SETTING

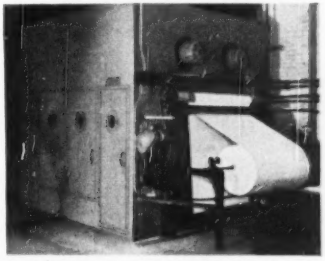
Engineered to handle net to sailcloth

After considerable research and a long period of test work in the field, Proctor engineers have developed two basic types of systems for nylon setting. As a result, there is Proctor equipment available to handle fabrics as flimsy as net—and as heavy as sailcloth.

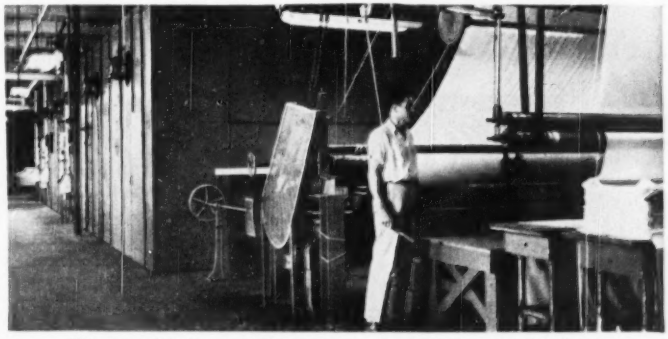
In the setting of tricots, simplexes, laces and nets, the cloth is dried in a pin tenter. Immediately following this, the fabric continues on the same tenter frame into a setting unit (of either the gas or electric type) where it is subjected to carefully controlled temperatures to assure proper setting. Results obtained by a leading nylon underwear manufacturer in setting 120" nylon tricot fabric, with this basic system, prove it will meet the most exacting standards of any manufacturer producing this type of goods.

The other basic equipment is for use in setting woven fabrics and is designed to handle nylon cloth either under tension or slack, in the same machine. Thus it is possible to set, in the same unit, crepes, spuns and other goods which must be handled in a tension free manner, as well as industrial cloths, upholstery fabrics and other goods requiring tension and contact setting.

For more detailed information on either or both of these systems, write today.



Proctor nylon setting machine for woven fabrics.



Wide tenter of the type used in Proctor setting system for tricots and similar fabrics.

Proctor & Schwartz, Inc. • 610 Tabor Road • *Philadelphia 20, Pa.*

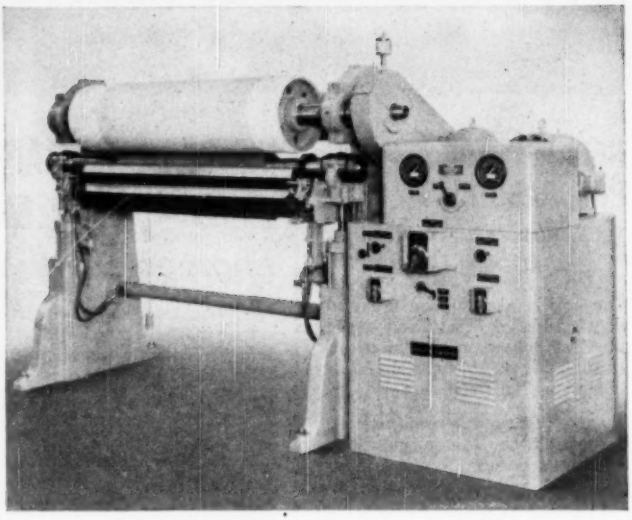
See it in Atlantic City . . .

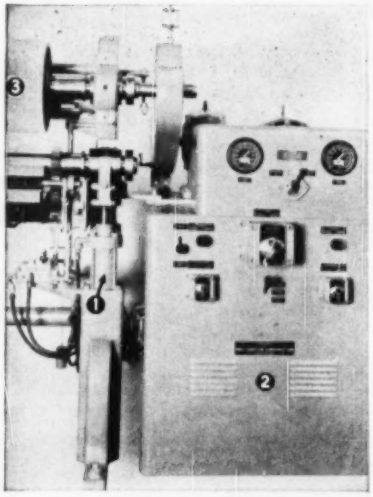
The New Rice Barton Single Color Hydraulic Printing Machine –

This machine has been used very successfully for single color printing on vinyl film as well as on textiles.

Because of its smooth, stepless control it does its work infinitely better and faster than previous models.

If you plan to print film or fabric let us tell you more about this new development.





1 Hydraulic Cylinders for raising and lowering print roll assembly.

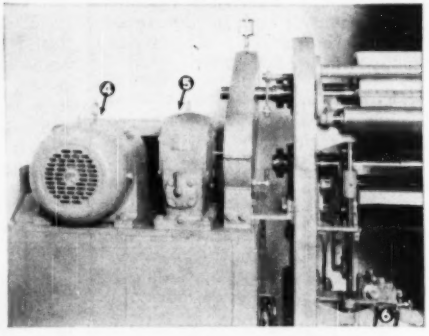
2 Hydraulic Power Unit and Operating Controls.

3 Rubber Covered Impression Cylinder mounted in anti-friction bearings.

4 Hydraulic Pump Motor (Explosion proof when used for printing vinyl film).

5 Worm Reduction Gear with fluid motor on input shaft and chain drive on output shaft to impression cylinder.

6 Hydraulic Oscillator for color doctor. With adjustable stroke and number of oscillations per minute.

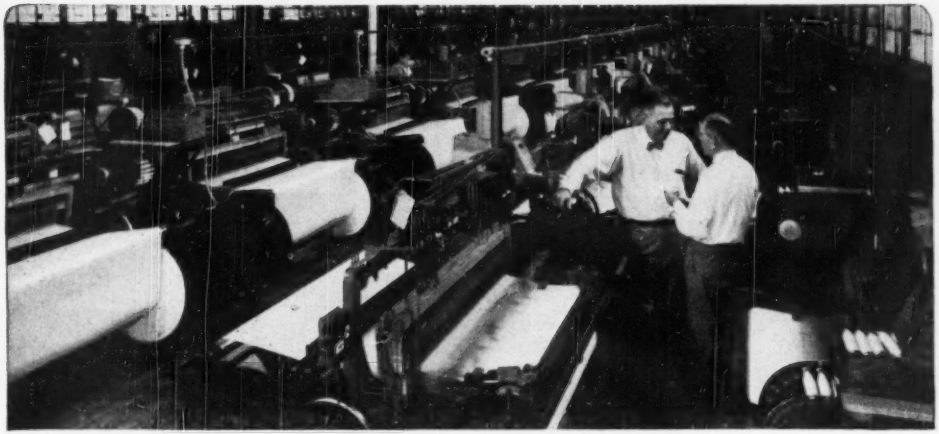


. . . Booths 45 and 46

Rice Barton Corporation
WORCESTER MASSACHUSETTS

BUILDERS OF PAPERMAKING MACHINERY SINCE 1837

BUILDERS OF TEXTILE PRINTING MACHINERY SINCE 1840



Years of smooth-running production ahead

for these new **looms**

with the help of

Gulf Lubrication

The kind of lubrication these new looms get down through the years will play an important part in determining the quality of the cloth they produce, how long they retain their efficiency, and how much they cost to operate.

To insure proper lubrication, the management of this progressive mill adopted the quality lubricants and the methods of application recommended by a Gulf Lubrication Engineer. As a result, every bearing and gear gets better protection against wear and loss of accuracy. And that means higher quality cloth in the long run, plus lower maintenance costs.

Scores of the country's leading mills rely on Gulf Lubrication, report that it helps them keep their machines and equipment in better condition and helps them reduce costs. They know from experience that Gulf lubricants are high quality, uniform products—that each one does its job well. They have found the wide experience and broad practical knowledge of Gulf Lubrication Engineers invaluable—a source of real down-to-earth solutions for their maintenance and lubrication problems.

This kind of lubrication service has real dollar and cents value to you. Write, wire, or phone your nearest Gulf office today and ask a Gulf Lubrication Engineer to call.

Gulf Oil Corporation • Gulf Refining Company

GULF BUILDING, PITTSBURGH, PA.

Sales Offices - Warehouses

Located in principal cities and towns throughout Gulf's marketing territory

GULF INDUSTRIAL LUBRICATION

BROWN SPECIALIZED INSTRUMENTATION
FOR THE TEXTILE INDUSTRY IS SETTING NEW STANDARDS
FOR HIGH-QUALITY LOW-COST PRODUCTION!

FROM PRE-BOARDING...

through scouring, dyeing and resin finishing...

TO FINAL-BOARDING...

BROWN INSTRUMENTS ARE BOOSTING UNIFORMITY, PUTTING THE SQUEEZE ON COSTS!

Brown Time-Temperature Controller for Nylon Hosiery Dyeing

FROM the beginning to the end of hosiery finishing operations, Brown Recording Controllers are setting new, high standards of efficiency for the industry.

Typical is the outstanding job being done by the Brown Time-Temperature Controller for Nylon Hosiery Dyeing. Totally self-contained and easy to operate, its precise control of the entire cycle assures proper *evenness* and *levelness* as well as the amount of color absorbed by the yarn. And, it is adaptable to the specific formula of any dyeing cycle. This maintenance of correct production conditions results in *steam savings, reduced spoilage* and *better color-matching.*

It will pay you to check into Brown Control Systems for all hosiery finishing operations . . . it will pay in higher quality, greater uniformity and lower costs. Call in your local Honeywell engineer for a discussion of your specific application . . . he is as near as your phone!

WORLD'S LARGEST ORGANIZATION FOR ADVANCED INSTRUMENTATION AND CONTROL
COMMERCIAL • RESIDENTIAL • INDUSTRIAL

MINNEAPOLIS-HONEYWELL REGULATOR CO.
BROWN INSTRUMENTS DIVISION
4492 Wayne Avenue, Philadelphia 44, Pa.
Offices in 77 principal cities of the United States, Canada and throughout the world

Honeywell — *Specialized Instrumentation* FOR THE TEXTILE INDUSTRY — BROWN INSTRUMENTS

IT'S A MATTER OF FACT . . .

WOMEN'S SUITINGS—

BIGGEST

New Market

IN RAYON

Are you getting your share of the big new business in women's rayon suitings? If not, check whether your fabrics have the high acetate content necessary for:

- **a lively, springy hand**
- **wrinkle-resistance**
- **dimensional stability**
- **special style effects achieved with low-cost cross-dyeing**

The best designers in the industry are getting these results with Celanese* staple fiber of acetate rayon which has a scientifically produced, controlled crimp.

Celanese Corporation of America
180 Madison Avenue, New York 16.

Available in Canada from
Canadian Cellulose Products, Limited, Montreal

Celanese* staple fiber of acetate rayon

*Reg. U. S. Pat. Off.

WHAT TO SEE AT *Atlantic City*

(BY A NATIVE)

ROOM B

BOOTHS 702 and 703

Atkinson, Haserick & Co.

SUPER-MARKET OF THE TEXTILE INDUSTRY

Representing

Platt Bros., Ltd.
(Booths 714 to 717 and 716A to 717A)
Prince-Smith and Stells, Ltd.
Taylor, Wordsworth and Co., Ltd.
Societe Alsacienne de Construction Mecaniques
Holdsworth Gill Screw Co., Inc.
Sellers and Company, Ltd.
William Ayrton and Co., Ltd.
Plutte, Koecke and Company
The Centrif-Air Machine Co., Inc.
Textile Equipment Corp.
Miller Textile Comb Co., Inc.
General Mill Supplies

WEATHER — It will probably be balmy spring weather, warm sun with a delightful, zesty ocean breeze, temperatures reaching about 70° at noon, although when the sun goes down a warm spring topcoat will come in mighty handy. Swimming will probably be enjoyed by you Maine wool men, but for the rest of us softies 50° or 60° might be a little too cold.

BOARDWALK — You'll probably want to walk the "boards" morning, noon and night. A whiff of that salt air will push out your chest or even air-condition you, if necessary. There's over 4 miles of boardwalk overlooking 520 acres of the softest, widest beach you've ever seen. If you're an early riser (before 8 a.m.) rent a bike and head south for a spin; — you'll have plenty of company.

ISLAND — Atlantic City is a narrow north and south Island, five miles from the mainland. Sunsets over the inside bay are magnificent. Only a few blocks wide, you can walk to almost any destination on the boardwalk.

PIERS — You can't miss them.

SPORTS — Surf fishing; — wonderful! Deep sea and tuna fishing party boats available through your hotel. Four golf courses, but dig up a sponsor.

NITE LIFE — Marvellous spots in every hotel on the boards. Swank cafes on "state" named streets which all run into the boards, are open late! If you want to stay out later, drive out a few miles on the Pleasantville-Philly road.

TRANSPORTATION — Direct trains and buses to Philly and New York with limited air service. In-town, everyone rides "Jitneys" (touring car-taxis that run up- and down-town on Atlantic Ave., over set routes at low fares).

ROADS — Ever visited Independence Hall? Jersey roads are the best, only 1½ hours to Philly on the dual highway *Black Horse Pike* (route 42 through Pleasantville).

HOTELS — Dozens along the boardwalk. There should be enough rooms for all but it is wise to make reservations now. If unforseeably stranded, Philly is very close or there are excellent, inexpensive rooms in tourist homes in Ocean City, a few miles south.

SUBURBS — On the same Island, south are the residential communities of Ventnor and Margate. North is the Inlet and water.

DON'T MISS visiting us at booths 702 and 703. We will have lots more information there, the technical kind that spells "profitable operation" for your mill.

An American Institution for 127 years

SUPER MARKET of the Textile Industry

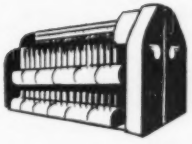
Atkinson, Haserick & Co.
BUSINESS ESTABLISHED 1823
Textile Machinery Agents and Engineers
211 CONGRESS STREET, BOSTON 6, MASS.
1639 W. MOREHEAD ST., CHARLOTTE, N. C.

PLATT BROS. & CO., LTD.	HOLDSWORTH GILL SCREW CO.
PRINCE-SMITH & STELLS LTD.	PLUTTE, KOECKE & CO.
TAYLOR, WORDSWORTH & CO., LTD.	SELLERS & CO., LTD.
SOCIETE ALSACIENNE DE CONSTRUCTIONS MECANIQUES	CENTRIF-AIR MACHINE CO., INC.
	JOSEPH HIBBERT & CO., LTD.

See the following pages for more Atkinson, Haserick news!

Don't miss THIS UNUSUALLY FINE EXHIBIT OF ENGLAND'S NEWEST *Cotton Machinery*

See END BREAKAGE REDUCED



PLATT MS-2 HIGH DRAFT SPEED FRAME

PLATT BROS.

(Sales) Ltd. • Oldham, England

AMERICAN TEXTILE MACHINERY EXHIBITION MAY 8-12, 1950

INCLUDING THE MACHINERY OF:
PLATT BROTHERS & CO., LTD.
HOWARD & BULLOUGH, LTD.
DOBSON & BARLOW, LTD.
BROOKS & DOXEY, LTD.
ASA LEES & CO., LTD.

See BETTER CARDING WITH INCREASED PRODUCTION

PLATT FLAT CARD with "NUCLOTEX" (REG.)

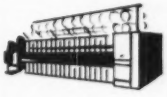
Don't fail to inspect
the detailed perfection of
these *faster* machines in Room B
BOOTHS 714-715-716-717
and 716AA-717AA

AMERICAN TEXTILE MACHINERY MANUFACTURERS EXHIBITION
ATLANTIC CITY - MAY 8 TO 12

See COMPLETE SCIENTIFIC OPERATIONAL CONTROL

HIBBERT SLASHER MODEL A-12

See CREELS WITHIN EASY ARM'S REACH



TWEEDALES & SMALLEY LTD. NEW RING TWISTER

INQUIRIES TO THE
SUPER MARKET
of the Textile Industry

AN AMERICAN INSTITUTION FOR 127 YEARS
Atkinson, Haserick & Co.
211 CONGRESS STREET, BOSTON 6, MASS. 1639 W. MOREHEAD ST., CHARLOTTE, N. C.

19,600 15,940 16,684 15,420 10,244 8,514
5,865 25,400 14,800 16,420 126,800
18,304 4,850 24,800
13,900 7,32
4,380 17,090 5,200 7,040 7,230
15,320 4,960 5,060
27,000 5,400 4,800 5,300 4,416
6,712 26,800 7,200 11,300
5,280 4,780 3,536 8,200
7,100 7,700 5,300 8,400 14,400 5,000
12,100
18,950 22,600 5,000 20,076
20,904
17,832 30,538
10,752 29,904

Marquette roller bearing spindles

with *full-floating* footstep bearing

for cotton, rayon, nylon, wool and worsted

The above figures represent some installations of Marquette Roller Bearing Spindles. In certain cases they were purchased to modernize old frames; in other mills they were specified on new frames. They save power, save tapes, save lubricant, and require less maintenance. They increase production through higher speeds, fewer ends down, and larger packages. Result: MORE YARN AT LOWER COST.

Let us prove this through a test installation. Contact our home office or one of our representatives.

AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

PROTECTED BY U. S. AND FOREIGN PATENTS, AND PATENTS PENDING

The Marquette METAL PRODUCTS CO.
CLEVELAND 10, OHIO
SUBSIDIARY OF CURTISS-WRIGHT CORPORATION

Representatives:
BYRD MILLER, WOODSIDE BLDG., GREENVILLE, S. C.
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WINDSHIELD WIPERS FOR AIRCRAFT, TRUCKS AND BUSSES • PRECISION PARTS AND ASSEMBLIES

Vol. 114
No. 4

Textile Industries

April
1950

How Far Must We Go?

THE CHIEF executive of a progressive textile organization recently interviewed two college engineering students who were to graduate in the near future.

The first student had several questions to ask. They were (1) What is the starting salary? (2) How long before I will be making $5000? (3) What fringe benefits does the company offer? (4) What is your retirement pay?

The second student had one question. It was, "What is the company policy on promotion within the organization?"

It is worthy of note that the first student took his four questions elsewhere, eventually going to work for an organization outside of the textile field where the answers were more favorable and where the retirement program at age 65 met with his approval.

The second student was satisfied with the company's policy of promotion from within (case histories indicated the policy to be excellent) and accepted the job. He probably will earn enough to plan for his own retirement.

BUT WE seriously doubt that the industry can afford to dismiss the case lightly.

For several years leaders within the textile industry have made a plea that technically trained men from fields other than textile engineering be encouraged to adopt textiles as their profession. Graduates in mechanical engineering, industrial engineering, electrical engineering, chemical engineering, etc., can prove, and have proved, to be assets to the textile industry.

There is still competition between industries for these bright engineering graduates — those who are willing to work for themselves and for their employers—but with the interview of the first college student being repeated on numerous occasions, it is indicative of a trend in the thinking of these young men. And a question now pondered by mill men is, "How far are we expected to go in attracting technically trained men to our industry?"

It is a serious question, one which will require serious consideration. And the answer will have to come from the textile men who ask it—

—or, will the other industries answer it for us?

J. C. F.

The Atlantic City Show

THE AMERICAN Textile Machinery Exhibition, to be held in Atlantic City, May 8-12, will be attractive and informative to mill men. It will provide textile manufacturers with the opportunity of seeing firsthand the improved equipment which they have heard existed in the experimental stages, or which has been improved recently.

The purpose of the exhibition is to consolidate in a chosen location the selected equipment and appliances of manufacturers who supply the textile industry—so that mill executives and their key operating personnel may conveniently visit and keep posted on the latest developments.

A special section in this issue of TEXTILE INDUSTRIES describes plans for the Atlantic City Show.

Although the directory listing the exhibits of the various manufacturers is as complete as cooperating companies furnished up to the closing date of this April issue, absence of a description of the exhibit is no indication that the exhibitors will have only resting space. Many of the companies plan to have interesting exhibits; in several known instances they will show equipment or auxiliaries which have not been seen before.

Not disclosing the contents of the exhibits was primarily a matter of policy with some manufacturers; too, they preferred to introduce the element of surprise for the visiting mill men.

THE Atlantic City Show will be of especial interest to departmental supervisors and key operating personnel. The exhibitors are keenly hopeful that these men will visit the exhibition. They are the men upon whose shoulders falls the responsibility for not only the selection of much of the equipment purchased by a textile plant, but the responsibility for the satisfactory operation of it.

The supervisor will get fully as much from a visit to the exhibition as will top management. And if the departmental supervisors and other key men can go to the exhibition with top management, both can profit from the experience.

(For information on the Knitting and Allied Crafts Exposition to be held in New York, April 24-28, see special coverage in this issue's Knitting Section, page 203.)

Reduces Rayon 'Seconds'

'Hard Size' is minimized by a slower congealing warp size

Try a quick run-off in your mill. You'll find that **SPUNJEL** – a specially prepared warp sizing gum for spun rayon – will not congeal or set-up in the feed line or in the size box during normal operation. It was developed to minimize imperfection rejects caused by 'hard size.'

Photo courtesy of JANTZEN

SPUNJEL can also be worked into your present formula to greatly minimize 'set marks.' Its high adhesiveness and strong, flexible surface film actually increases the tensile strength of the yarn.

National STARCH PRODUCTS

Address: 270 Madison Ave., New York 16; Boston, Philadelphia, Atlanta, Indianapolis, Chicago, San Francisco and other principal cities. In Canada: National Adhesives (Canada) Ltd., Toronto and Montreal

We'd like to test these NATIONAL Textile Specialties and Starches:

- ☐ Please send test samples
- ☐ Have a representative call
- ☐ SPUNJEL (described above)
- ☐ AMBERTEX M for screen and machine printing
- ☐ FLOTEX to replace natural printing gums
- ☐ FLOCK ADHESIVE 970 for chenille printing
- ☐ FARILON for Rapidogen printing and backfilling
- ☐ FIBERJEL V for filament viscose sizing
- ☐ CLEARFILM for bright, lustrous finishes on cotton and rayons
- ☐ VAT THICKENER 36 for rayon and cotton

Mr. _____

Company _____

Address _____

City _____ Zone _____ State _____

NEWS in BRIEF

Mill Makes Safety Film. Mohawk Carpet Mills, Amsterdam, N. Y., has prepared a visual education film on safety. Used in the orientation program for new employees, the cartooning and other work involved in making the picture cost less than a thousand dollars. The film is said to bring the safety message to the employees in an effective manner.

Integration No Threat. There is no "serious threat of monopoly power in the foreseeable future, despite the revolutionary trend toward integration in recent years" in the textile industry, according to Jesse W. Markham, who writes on Integration in the Textile Industry in the January issue of "Harvard Business Review."

ICS Industrial Instrument Course. A new 61-part training course treating the knowledge and use of industrial instruments has been announced by International Correspondence Schools, Scranton, Pa.

GE Apparatus Train. General Electric has launched its "More Power to America Special" train on a nation-wide tour. Exhibits of more than 2,000 electrical products, processes, and techniques will be displayed throughout the nine cars. Textile industry models will be included in the exhibits.

Technical Staffs for Associations? The opinion has been expressed by textile officials that state and national textile associations could be more effective and render the industry a greater service if emphasis were placed on technical processing methods, in addition to usual associational activities. Such a move sponsored by management, it is pointed out, would permit voluntary exchange of information, coordination on research and processing tests, and quicker progress in technical matters — without disclosure of mill secrets.

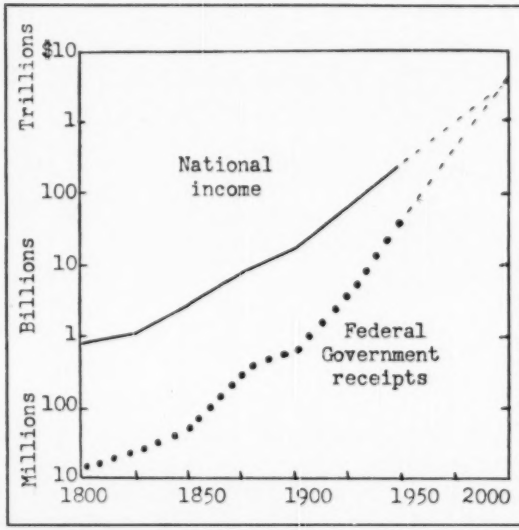
To Inform Public on Rayon. Means of informing and educating the public of ways of distinguished rayon fabric qualities are to be developed by a new committee now being organized as a part of a program defining minimum qualities.

Austria to Buy Cotton. ECA has announced the contemplated purchase by Austria of $3,600,000 worth of raw cotton.

Hosiery Details for Women. DuPont has started an advertising program designed to acquaint women with the importance of denier, fabric construction, and other details about full-length hosiery. DuPont makes no stockings; furnishes the nylon.

"Oily Bagging" on Warehouse Receipts. During the next cotton season "oily bagging" will be noted on warehouse receipts issued on bales that are covered by oily bagging or have spots on it. Trouble has been experienced with the heavy type sugar bagging because of oil.

Nylon Cord Inner Tube. A new automobile inner tube made with nylon cord by U. S. Rubber is claimed to be stronger and safer. Reinforced with two plies of nylon cord and designed for maximum protection against the hazards of sudden deflation due to punctures or blowouts, the new tube is said to have reserve strength almost equal to that of the tire itself. In event of a puncture, the nylon built into the wall of the tube squeezes rubber around the punc-



NATIONAL INCOME AND TAXES PLOTTED BY CHAMBER OF COMMERCE (FORECAST FOR YEAR 2,000)

"Economic Intelligence," published by Chamber of Commerce of U. S., falling in line with forecasters in general and President Truman in specific, extended the graph of national income and Federal receipts (taxes). "If the trend holds," says the paper, "by 1990 the receipts will equal national income. At that point, presumably, the wage earner will get a withholding receipt for his full pay, but no money." The paper points out that this over-simplified method of forecasting must be taken with a grain of salt—but "something has to give."

TEXTILE BANKING COMPANY

Inc.

Factoring Service

Puts your sales on a cash basis
Strengthens your cash position
Relieves you of credit losses

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turing object, preventing sudden flats and permitting only a slow leakage of air.

IBM Calculators for Statistical Analysis. Where many sets of figures must be correlated before statistical analyses can be made, some organizations are finding IBM calculators useful.

Public Relations Plan for Agriculture. "Grassroots Public Relations for Agriculture" is a book by Ed Lipscomb of the National Cotton Council which advocates and gives a working plan for public relations programs by farm leaders in each of the country's 3069 counties. Objective is to protect basic Americanism.

Irrigated Cotton Report. A new report presents in summary form the findings of personnel who have been investigating the fiber properties and spinning performance of irrigated cotton from the El Paso area. Cotton from that area is shown in the report to be equal or superior to cotton of the same grade and staple from other areas when proper settings are used during manufacturing. Request copy from Cotton Research, Texas Technological College, Lubbock, Tex. (See page 142 this issue for suggested mill settings.)

New England Textile Foundation Campaign. The fourth campaign for the benefit of the textile schools in New England began in February, sponsored by the New England Textile Foundation, 68 S. Main St., Providence, R. I. Money contributed is used for the purchase of modern equipment, scholarships, and the subsidization of faculty salaries.

CONTINUOUS CHECK ON REJECTS (SECONDS)

General Electric demonstrates a new electric calculating machine that can keep a continuous check on reject or seconds rates in production operations. In use, an inspector would press a button every time a cut of seconds is found; the signal registers on the instrument. By this method the reports on graded goods would be recorded immediately in the superintendent's office.

Loan Cotton Grade Higher, But Shorter. The 1949 crop of cotton under Commodity Credit Corporation loan averages higher in grade but shorter in staple.

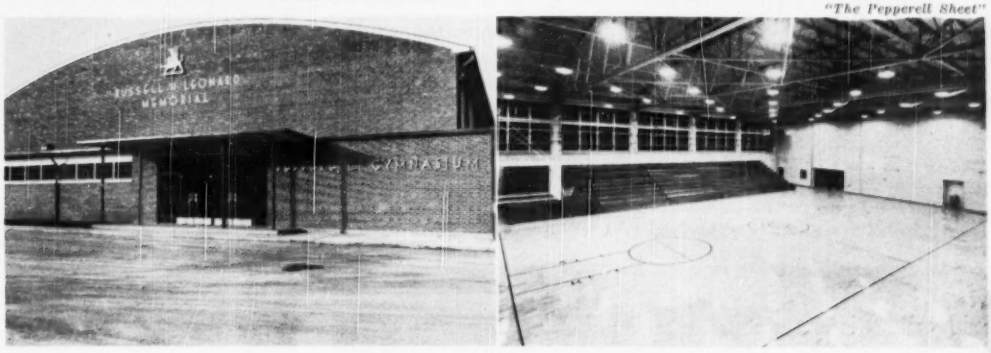
Sulzer Weaving Machine Still Testing. Warner & Swasey's Sulzer weaving machine is undergoing exhaustive tests in the company's textile laboratory. When the company is satisfied with the mechanical excellence of the machines, they will be placed in mills for operation under actual production conditions.

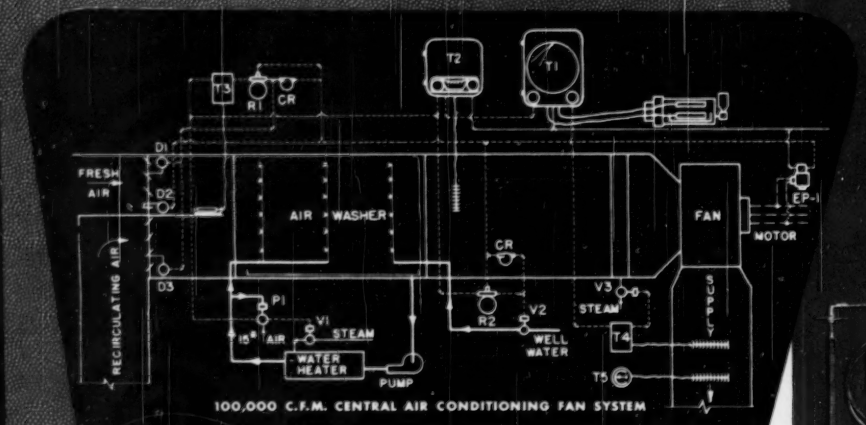
Use of Surplus Machinery in Emergency. In case of a national emergency, plans are being made by the Quartermaster Association which involve the maximum use of surplus machinery; a workable plan would take unneeded equipment in one plant and make it available to others during the emergency period, thus reducing industry demands for steel. Manufacturing organizations are encouraged to learn about the work of the QM Association, recognized as the textile industry's link with the Quartermaster Corps.

Reservations for El Paso Trip. Combed Yarn Spinners Association will celebrate its 25th Anniversary and hold its annual meeting in El Paso, Texas, Sept. 11-13, in conjunction with the annual Spinner-Breeder Conference. A special train will leave September 6, arriving in El Paso on September 10th, with full day stopovers in New Orleans, Houston, and San Antonio. Make reservations through the association at 601

The new Russell H. Leonard Memorial Gymnasium at the Lindale, Ga., plant of Pepperell Manufacturing Company. The modern gym is dedicated in memory of the late president of the company.

"The Pepperell Sheet"



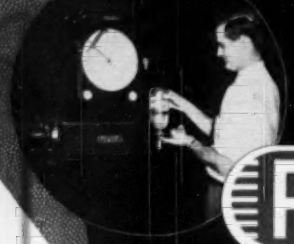


100,000 C.F.M. CENTRAL AIR CONDITIONING FAN SYSTEM

REGULATED BY POWERS CONTROL AT UXBRIDGE WORSTED CO.

Additional equipment under POWERS Control has the following capacities:

One 80,000 C.F.M. Fan System
One 12,000 C.F.M. Fan System
Two 60,000 C.F.M. Fan System



POWERS

AIR CONDITIONING CONTROL

Helps Produce a Better Product at Lower Cost

20 to 30% Increase in Efficiency — claimed for modern air conditioning installed in The Uxbridge Worsted Co., progressive 100-year-old mill at Uxbridge, Mass.

Dry-Bulb temperature of 78° F. and Wet-bulb at 68° F. is maintained with year 'round accuracy of 1° F. plus or minus on over 300,000 C.F.M. of equipment conditioning air in carding, spinning, weaving and sewing departments.

Room temperature is maintained by the control of reheater from the room dry-bulb recording regulator. Sub-master dew-point regulator is reset from room wet-bulb recording regulator. The dew-point temperature is maintained by the sequence operation of water heater, fresh air and recirculating air dampers, and finally the well water valve.

For Better Air Conditioning Control and valuable aid in selecting the right equipment for your requirements contact our nearest office.

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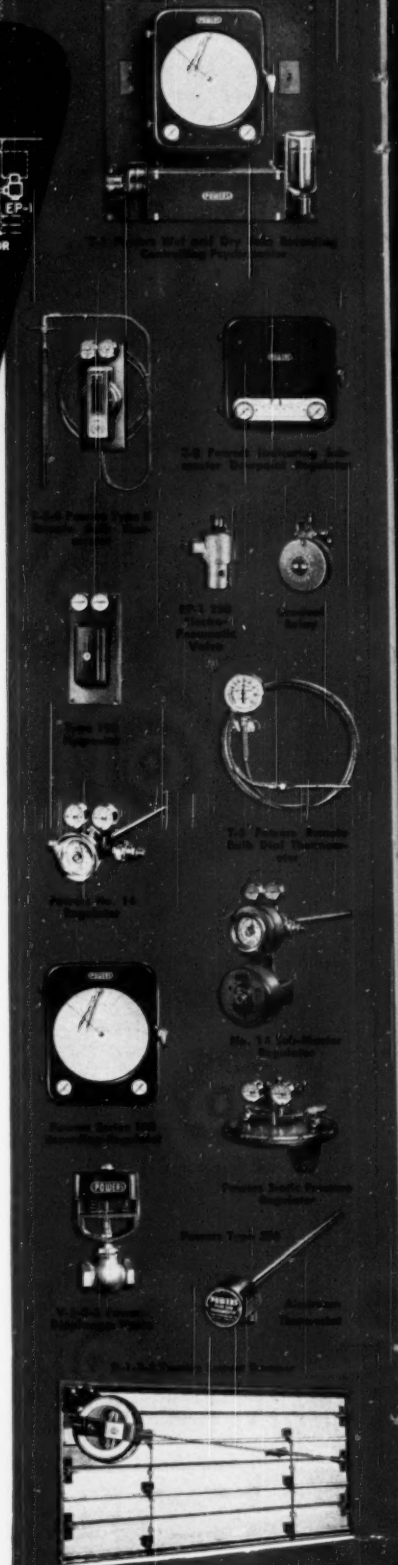


Bank of Commerce Building, Gastonia, N. C.

Standard Nep Counting Methods. Mill men claim that a standard method of counting neps is needed. Such a standard would permit mills to make comparative studies. At present the mills set their own standards; these mean much to the mill making the count, but little to another mill which desires the information for comparative purposes.

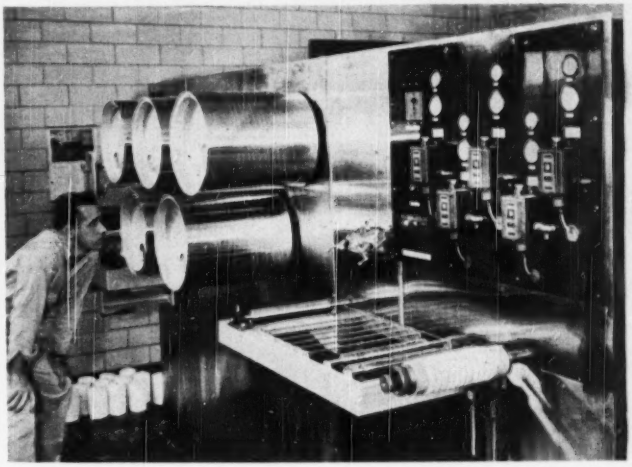
Manlift Safety Code. A new safety code for manlifts has been announced by the American Standards Association, 70 E. 45th St., New York 17, N. Y.

World Chemists to Meet in September. Chemists and chemical engineers from more than 30 countries will meet the week of September 2 in New York. Organizations present will be American Chemical Society, International Union of Pure & Applied Chemistry, and International Congress of Pure and Applied Chemistry. This combination of meetings will be the first held in the U. S. since 1912.

Get Ready for the Census. In April, 140,000 enumerators of the Bureau of the Census will take the 17th Decennial Census of the nation. They will call at about 45 million dwellings. The bureau will tabulate about 15 billion facts which are collected.

Cataloging Cotton Research. The National Cotton Council has started the job of cataloging all cotton research knowledge in line with the recommendation proposed at the Cotton Research Clinic, held recently in Washington.

Pure Water Quickly. Water which is virtually free from ionized impurities can be produced quickly at a low cost by the new mixed-bed technique of ion exchanges, in a miniature unit made by Crystal Research Laboratories of Hartford, Conn. Called the Deeminizer and yielding up to five gallons of water equal in chemical quality to triple-distilled, the unit is of interest to researchers and laboratories.



MONSANTO'S EXPERIMENTAL SLASHER

Frank Masterson, research chemist in Monsanto's Merrimac Division textile laboratories, Everett, Mass., checks the temperature on the drying cans of the new experimental slasher. It was specially designed and constructed to provide adequate testing facilities for synthetic sizing agents.

Details: Removable size box, immersion roll, squeeze rolls, five drying cans, lease rods, rake, and take-up beam. Controls maintain size temperatures in size box at between 90 and 220F. Gauges are attached for reading variable air pressure. Capacity, 330 yards at speeds zero to 15 ypm, with stretch up to 20%. (For description of another laboratory slasher, see page 175, Feb. 1950 TEXTILE INDUSTRIES.)

Remove Cause But Leave Effect. Instances have been noted where mills install magnetic separators in their opening lines to remove foreign metal, but fail to clean up damage already done to machines. The suggestion has been made that opening equipment, once magnetic separators have been installed, should be thoroughly gone over and the burrs and defective places which cause neps be removed.

Minimum Wage Law Hardships. Lay-offs of the aged and disabled have been prevalent among Pennsylvania knitters as a direct result of the new minimum wage law. Under the new hourly rate, mills have found it prohibitive to carry older, less agile, slower-producing marginal employees. Seaming, looping, trimming, and inspecting help on piece-work have been especially affected.

Universal Spinning System. A resurgent want among spinning mills is for some simplified spinning system adaptable to the many fibers and blends available. More than one mill has delayed spinning frame procurement in anticipation of the development of a universal spinning system within the foreseeable future. Considerable interest is being directed toward the recently announced English "Amber" spinning machine.

Homeworkers Neglect Machinery. The serious shortage of trained loopers has prompted knit-

Presentation of coveted Safety Flag at Kendall Mills (*left to right*) J. A. Connell, Division Service Mgr. Loss Prevention, Liberty Mutual Insurance Company; Joseph Demarais, Kendall Foremen's Club; Van Buren Hopps, Local Personnel Manager; Jeannette Morse; Charles Ainsworth; George Waters, Safety Engineer, Liberty Mutual Insurance Company; Robert Wishart, Works Manager

WIN NEW HONOR

Teamwork earns coveted safety award at

KENDALL MILLS

DIVISION OF THE KENDALL COMPANY

Griswoldville, Massachusetts

BY their splendid safety record, the men and women of Kendall Mills have won an important victory — for themselves, for their company and for their community. They have reduced lost time accidents 50%. To the workers and their families, this record means safer, more secure lives, free from pain and fear and loss. To management, it means smoother production and lower costs. To you and your neighbor, it means a stronger, healthier community.

Through fine teamwork between workers, management and insurance loss prevention engineers, everyone has benefited. Think of this when you see the Loss Prevention Flag proudly flying at Kendall Mills.

LIBERTY MUTUAL
INSURANCE COMPANIES
HOME OFFICE BOSTON

We work to keep you safe

ting manufacturers to set up looping machines on a homework basis. One of the resulting complications is the abuse and lack of maintenance these doled out machines are suffering.

Book Matches Effective in Safety Campaign. Piedmont Cotton Mills, East Point, Ga., purchased book matches featuring slogans aimed at carelessness. Result was that fire and accident rates fell so low that the company received a merit award. Employees are requested to fill all their requirements for matches from the company's stockpile of safety campaign book matches. Diamond Match Company reports other mills have had similar experiences.

Machinery Replacement Formula. A new guide to determine when a machine is economically dead and due for replacement has been advanced by the Machinery and Allied Products Institute, 910 17th St., N. W., Washington, D. C. The formula measures the imperfection of performance of the machine in use in relation to the best alternative method.

Redman Process. Spring City Bleach and Dye Works, Inc., has started commercial runs of cotton knit goods through Redman process machinery. Among the first knitters making use of the shrink stabilization technique are Spring City Knitting Co., and Gibbs Underwear Co.

Open House at N. C. State. Students of the School of Textiles, North Carolina State College, Raleigh, N. C., will hold a Textile Open House on Saturday, April 22. All persons interested in textiles are invited to attend the day-long affair.

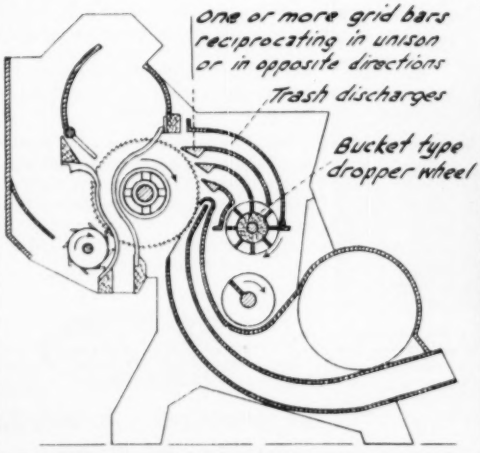
NEW PRINCIPLE IN CLEANING COTTON

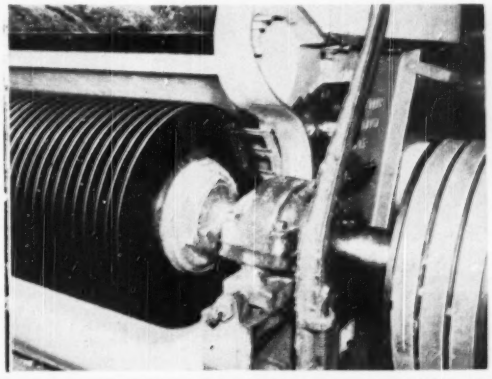
Agricultural Research Administration engineers of the United States Department of Agriculture's Cotton Ginning Laboratory at Stoneville, Miss., announce that they have public patent applications under way covering an improvement and new principle for cleaning cotton fiber.

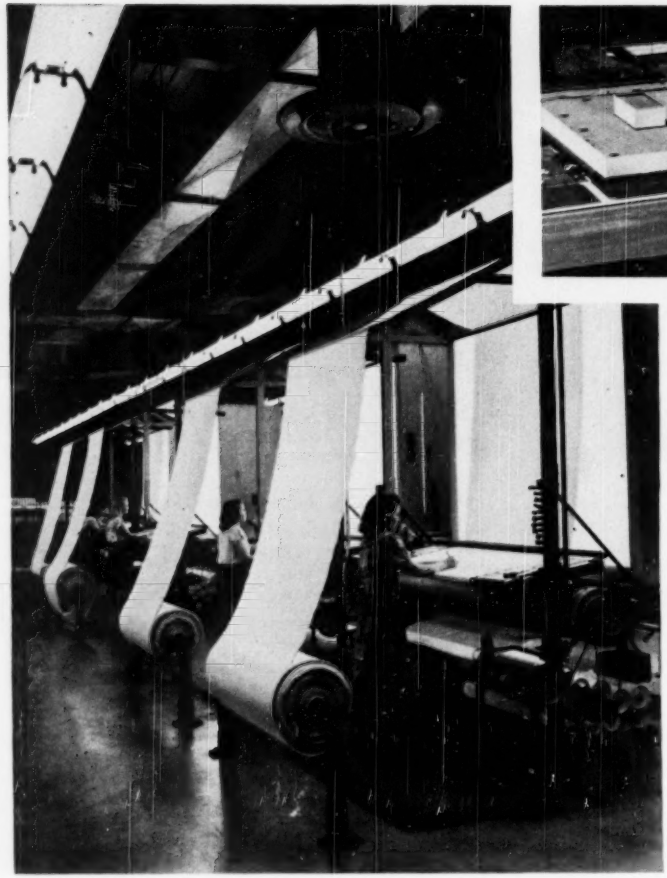
The department engineers' invention embodies a series of horizontal keen-angle grid-bars operating in connection with any toothed or beater cylinder of a fiber cleaning apparatus such as in a cotton gin stand, cotton gin lint cleaner, or cotton mill cleaner.

An outstanding feature of this invention is the self-cleaning assembly of grids which oscillate or reciprocate to and fro in relation to the toothed cylinders or beaters. Suitable provisions are made in the apparatus for the prevention of return of foreign matter to the lint stream.

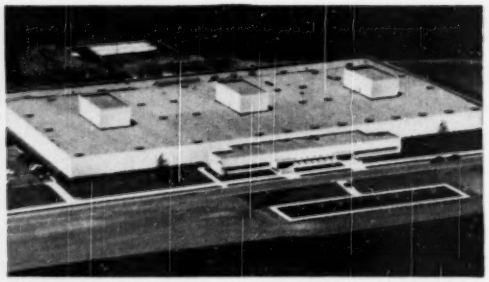
The new apparatus has been tested in a preliminary way at the Stoneville Laboratory, but will be subjected to thorough investigations from all angles, including fiber and spinning testing in laboratories of the Department's Production and Marketing Administration before any recommendations concerning its practical application and use can be made.







Fewer seconds when air conditioning steps up weave room efficiency. Fewer thread breaks reduce seconds. Looms stay in adjustment longer even at high speeds when temperature is maintained at a uniform level. Air conditioning duct-work is above level of lights.



Air view bears out claim of new mill to be newest, most modern in the South. Ponds with fountains—front and back—cool water used in refrigerating equipment which air conditions entire plant and offices.

NEW GERRISH MILLIKEN RAYON PLANT FULLY AIR CONDITIONED BY CARRIER

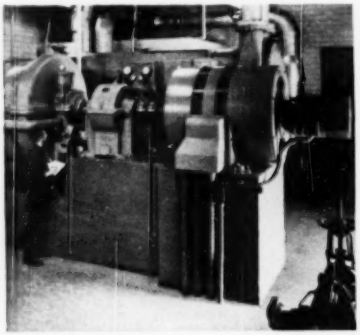
Pendleton, South Carolina, mill controls temperature as well as humidity in manufacture of synthetic fabrics

Increased efficiency and reduced seconds are tangible benefits

One of the newest, most modern mills in the South is air conditioned by Carrier. It is the new Gerrish Milliken Mill at Pendleton, South Carolina. The main mill area consists of Twisting, Preparatory and Weaving Departments. It is served by three separate central station systems.

What are the benefits? In twisting: more uniform tension produces a more uniform twist; higher spindle speed; lower labor costs. In weaving: fewer loom stops; fewer seconds; less loom fixing; lower labor costs.

Air conditioning helps keep machines in adjustment, employees comfortable. In the Physical Testing Laboratory temperature and humidity are controlled to extremely close limits. The offices and cafeteria are separately supplied with year-round air conditioning.



Equivalent to 900 tons of ice is this Carrier Centrifugal Refrigerating Machine. It cools 2300 gallons of water per minute . . . maintains a constant temperature of 80 degrees even during summer months.

Push a button . . . the dial shows the temperature in any part of the mill. Central control panel is heart of pneumatic control system. Temperature and humidity are recorded for permanent records.

Carrier

AIR CONDITIONING • REFRIGERATION
INDUSTRIAL HEATING

AN

EXECUTIVE VIEWS

THE NEWS IN TEXTILES

Prepared by a man who is closely identified with the textile industry.

THE AUTHOR of this column has had quite a bit to say about the difficulties the mills have experienced with cotton stained by coated bale ties. Most of the manufacturers we talked to have either managed to solve this problem with the shippers or they have grown tired of mentioning it because it is a subject we have not heard discussed recently.

Now, however, a new problem rears its ugly head. Some of our friends and acquaintances report difficulty experienced because of using cotton that has been baled in second hand bagging. Such second hand bagging would not ordinarily cause this difficulty, but in the particular cases we have heard about, the bagging had previously been used for colored yarn and some of the yarn had not been removed. Thus, when the bagging was placed around cotton bales, it was almost inevitable that some of the colored yarn would get into the cotton, that it would not be removed in the opening room, and that somewhere along the line some mill production man would find himself face to face with a new headache.

One Mill's Experience

One mill we heard about found peculiar spots in its cloth after it came from the bleachery. These were generally red and blue specks which did not do much to help the appearance of what was intended to be white goods. One theory was built around the belief that female battery fillers were using an excess of rouge and that this rouge was being transferred from the face to the fingers and finally to the goods in production. Fortunately for the cosmetic industry, this theory was later ruled out.

If your mill has been plagued with colored spots appearing where they should not appear, then you may want to consider the possibility that cotton you have bought has been baled with used bagging to which has adhered colored yarn. You may find that in your particular case something else is causing the difficulty, but this idea at least will be worth investigating. In the event you can trace the specks back to used bagging, then you will want to take this matter up with your cotton shipper in an effort to alleviate the trouble.

It seems that in the process of ginning raw cotton and getting it into some form which may readily be shipped to the textile mills, many things can occur. No doubt as long as men operate gins, we are going to have trouble of this nature. But at least by working together we can go a long ways down the road toward solving many of our difficulties.

Frear Bill

So much is happening in Washington these days that it is almost impossible for the average American citizen to keep up with even a minor portion of it. One committee talks about the A-bomb, another talks about the H-bomb, and still another makes vague and threatening references to some other type of bomb which will make both A and H seem like mere letters of the alphabet. In this national hubbub, it is easy to lose sight of legislative actions which may have a great effect upon how we operate our businesses.

One such bill is S.2408, which has been popularly referred to as the Frear Bill. Stripped of its legal jargon, the Frear Bill would require quite a few companies to register for the first time with the Securities Exchange Commission. This would mean that such companies would be required by law to file very detailed reports indicating salaries of officers and directors, sales and purchases of stock by officers and directors, and much other information of this nature. The proposed bill would apply to companies with $3,000 000 or more in assets and 300 or more stockholders.

One or two of the textile associations have appeared before the appropriate Senate committee in order to express the views of their members, but quite a few other agencies have appeared to support the measure. This is something to which you may care to give full and complete consideration, and after such consideration you may want to get in touch with your Senators and Representatives in Washington.

This writer does not claim to understand this or any other bill which has been introduced in Congress. It does appear, however, that the Frear Bill is just another step down the road to more complete government supervision and domination of American business. It seems that the philosophy in Washington today is that no businessman should be entrusted with the operation of his own business. The Frear Bill is an evidence of this philosophy.

Gettysburg Address

Speaking of Washington reminds this writer of a 1950 version of the Gettysburg Address which recently floated into the

LABOR RULINGS

Seniority rights of employees do not arise from mere fact of employment but can arise only because of a valid contractual undertaking between the employer and employees.

Refusal of employer to sign collective bargaining contract constitutes unfair labor practice.

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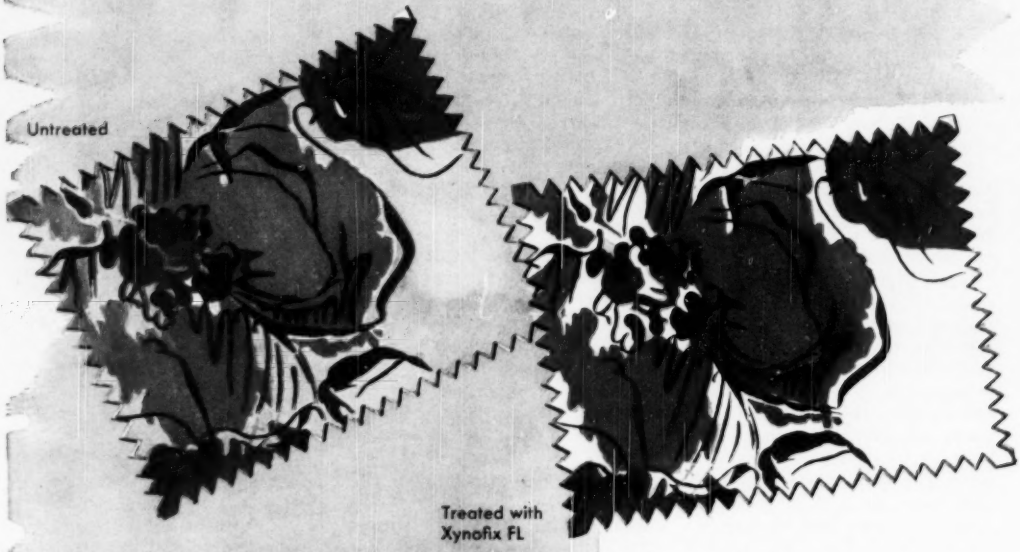

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office from somewhere. Prepared by an unknown author known as "Anonymous," this little piece expresses the thoughts of many of us today who view the national picture with a considerable amount of concern. This is the way it goes:

One decade and seven years ago our fathers brought forth upon this nation a new tax, conceived in desperation and dedicated to the proposition that all men are fair game.

Now we are engaged in a great mass of calculations, testing whether that taxpayer or any taxpayer so confused and impoverished can long endure. We are met on Form 1040. We have to dedicate a large portion of our income to a final resting place with those men who here spend their lives that they may spend our money.

It is altogether anguish and torture that we should do this. But in the legal sense we cannot evade—we cannot cheat—we cannot underestimate this tax. The collectors, clever and sly, who computed here have gone far beyond our poor power to add or subtract. Our creditors will little note nor long remember what we pay here, but the Bureau of Internal Revenue can never forget what we report here.

It is for us, the taxpayers, rather to be devoted here to the tax return which the government has thus far so nobly spent. It is rather for us to be here dedicated to the great task remaining before us—that from these vanishing dollars we take increased devotion to the few remaining; that we here highly resolve that next year will not find us in the higher income bracket; that this taxpayer, underpaid, shall figure out more deductions; and that taxation of the people, by the Congress, for the Government, shall not cause our solvency to perish.

Spring Conventions

About this time each year, those unfortunate individuals who must attend one or two of the textile conventions begin to think in terms of golf clubs, dinner jackets, and Alka Seltzer. It is a time of year when many a textile executive's duty calls him to such forlorn and forsaken spots as Biloxi, Mississippi; Daytona and Palm Beach, Florida. Some of the unfortunate individuals who work for textile magazines and newspapers must "cover" all of these meetings, and the rest of us who are more fortunate certainly owe them our sympathies. A year or two ago, we discussed in this column the plight of a man who started out with the meeting of the American Association in early spring and who ran the gamut from New Orleans to Daytona to Biloxi to Pinehurst and to one or two other stations along the route.

Once again, Spring is upon us and the Ides of March have passed. By the time you read this, the first convention of the newly created American Cotton Manufacturers Institute, Inc., will be a thing of history. But still before many of you will be the horrible thought of having to go to the meeting of the Alabama Cotton Manufacturers Association in Biloxi April 27-29, or to the meeting of the Cotton Manufacturers Association of South Carolina in Charleston May 11-13, or to the meeting of the Cotton Manufacturers Association of Georgia in Daytona Beach May 17-19.

It is said that some hardy individuals are already making plans to participate in the jaunt to El Paso, Texas, which is planned by the Southern Combed Yarn Spinners Association. This will be the 21st Anniversary meeting of the Association, and it will be held in conjunction with the 7th Annual Spinner-Breeder Conference. To take care of the group expected to travel to El Paso, a special train is being arranged which will leave the North Carolina area on September 6 and return on September 17. With the dates of the meeting set for September 11-13, this train schedule will allow ample time for stopovers at New Orleans, Houston, San Antonio, and Dallas.

Yes, sir! It's a rough life.

April 13-14—Conference on Textile Industry, sponsored by American Institute of Electrical Engineers. Place, Georgia Institute of Technology, Atlanta, Ga.

April 24-28—Knitting and Allied Crafts Exposition, 71st Regiment Armory, New York, N. Y.

April 25-26—Annual convention, National Knitted Outerwear Association, Hotel Waldorf-Astoria, New York, N. Y.

April 27—Annual meeting, Underwear Institute, Commodore Hotel, New York, N. Y.

April 27—Conference on Textile Industry, sponsored by North Eastern District, American Institute of Electrical Engineers. Place, Sheraton-Biltmore Hotel, Providence, R. I.

April 27-28—Spring meeting, Fiber Society, Fontana, N. C.

April 27-29—Annual convention, Alabama Cotton Manufacturers Association, Buena Vista Hotel, Biloxi, Miss.

April 28-30—Annual convention, Delta Kappa Phi Textile Fraternity, Lowell, Mass.

May 1—Annual meeting, National Association of Hosiery Manufacturers, Claridge Hotel, Atlantic City, N. J.

May 1-2—Hosiery Industry Conference, Claridge Hotel, Atlantic City, N. J.

May 1-6—National Cotton Week, sponsored by National Cotton Council.

May 5-7—Annual convention, Phi Psi Textile Fraternity, New Ocean House, Swanscott, Mass.

May 8-12—American Textile Machinery Exhibition, sponsored by National Association of Textile Machinery Manufacturers, Atlantic City Auditorium, Atlantic City, N. J.

May 11-13—Annual meeting, Cotton Manufacturers Association of South Carolina, Fort Sumter Hotel, Charleston.

May 11-13—Annual outing, Carolina Yarn Association, Carolina Hotel, Pinehurst, N. C.

May 17-19—Fiftieth annual (Golden Anniversary) convention, Cotton Manufacturers Association of Georgia, Sheraton Plaza Hotel, Daytona Beach, Fla.

May 25-26—Annual outing, Chattanooga Yarn Association, Lookout Mountain Hotel, Chattanooga, Tenn.

June 1-3—Annual convention, Southern Textile Association, Ocean Forest Hotel, Myrtle Beach, S. C.

June 9-10—Annual outing, Southeastern Section, American Association of Textile Chemists and Colorists, Radium Springs, Georgia.

August 7-19—First United States International Trade Fair, Navy Pier, International Amphitheatre, Coliseum and Arena, Chicago, Ill.

Sept. 11-13—Joint meeting, Southern Combed Yarn Spinners' Association and Spinner-Breeder Conference, El Paso, Texas.

Sept. 22-23—Second Canadian Textile Seminar, Queen's University, Kingston, Ont., Canada.

Sept. 28-30—Annual convention, American Association of Textile Chemists and Colorists, Wentworth-by-the-Sea, Portsmouth, N. H.

Oct. 2-7—16th Southern Textile Exposition, Textile Hall, Greenville, S. C.

Oct. 11-21—International Exhibition of Knitting Machinery and Accessories, Granby Halls, Leicester, England.

Oct. 12-13—Annual meeting, North Carolina Cotton Manufacturers Association, Carolina Hotel, Pinehurst, N. C.

Oct. 26-27—Annual Convention, Carded Yarn Association, Carolina Hotel, Pinehurst, N. C.

ATTENTION, MR. MILL MAN!

A real working scale model of our revolutionary new NIAGARA TWIST SETTER Yarn Conditioning Machine will be one of the highlight attractions of the Atlantic City Show. Plastic sidewalls enable you to see the simplicity of its operation.

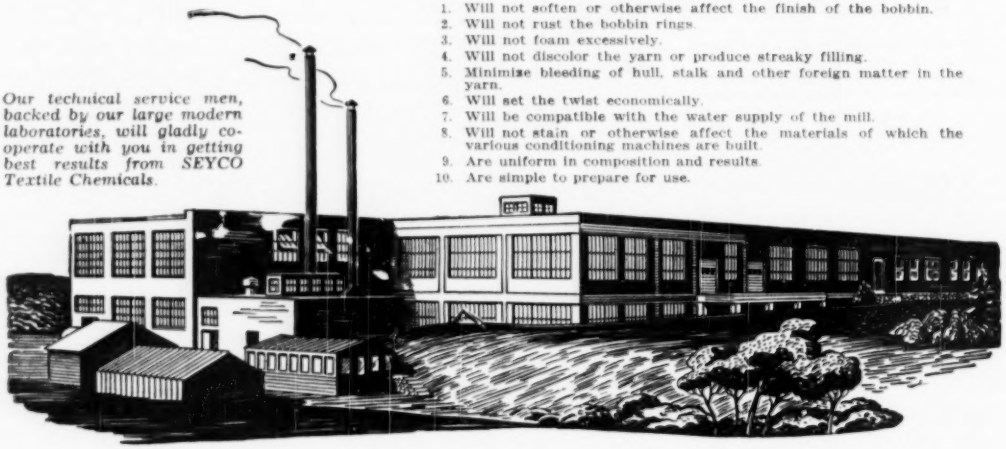
This will be on display at the booth of our northern representative, Standard Mill Supply Company (Booth No. 51-53).

P.S. When your feet get tired, stop by our own booth, No. 820, just around the corner. See you at the Show.

HEADQUARTERS FOR SEYCO PENETRANTS

Our technical service men, backed by our large modern laboratories, will gladly cooperate with you in getting best results from SEYCO Textile Chemicals.

1. Will not soften or otherwise affect the finish of the bobbin.
2. Will not rust the bobbin rings.
3. Will not foam excessively.
4. Will not discolor the yarn or produce streaky filling.
5. Minimize bleeding of hull, stalk and other foreign matter in the yarn.
6. Will set the twist economically.
7. Will be compatible with the water supply of the mill.
8. Will not stain or otherwise affect the materials of which the various conditioning machines are built.
9. Are uniform in composition and results.
10. Are simple to prepare for use.



SEYDEL-WOOLLEY & CO.

TEXTILE CHEMICALS

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SEYCO

PENETRANTS • SIZING • SHUTTLE DRESSING • SOFTENERS • ALKALIS • TWIST SETTER MACHINES •

SHORTS and REMNANTS

Won't Wait to Fall Down

Some people get all the breaks. June Hamilton Rhodes writes that she is leaving the field of industry counsel, publicity, and promotion to go to Florida to relax awhile. "I am well, my business is fine, and I don't see why this isn't a wonderful time to stop—not wait till I run down, slow down or fall down."

We think she has something there. May even be starting a fad. Let's all clip this for the boss' desk—a good way to start the trek.

"Core Testing" Still Going Strong

Requests for reprints of the 16-page color section on "Core Testing Wool" [January] are still being received by the editors. Luckily, the demand was anticipated, and we can supply reprints to interested parties.

Dry Chemical Extinguishers

". . . as Factory Mutual was instrumental in introducing dry chemical extinguishers to our textile mills and as the results have been more than satisfactory, we are naturally interested in all comments [on story in October 1949 issue]."

R. G. SHEPHERD
Engineer, Standards Dept.
Factory Mutual Eng. Div.
Boston, Mass.

● Reprints of this article are available.

Irrigated Cotton

"Will you kindly supply me with a reprint of the article printed in the November 1949 issue—subject: Irrigated Cotton."

W. T. SATTERFIELD
Research & Tech. Control Div.
Collins & Aikman Corp.
Bristol, R. I.

● The story in TI was a survey of several methods used by the mills to process irrigated cotton. Since our story appeared, Texas Technological College, Lubbock, Tex., has had some work under way; a report is available.

Nep Information

"Please send us three reprints of your article 'A Review of Literature on Neps' by G. F. Bogdan."

B. NORWICK
Beaunit Mills, Inc.
New York

● Reprints not available. Tear sheets will be sent so long as the supply lasts.

"How to Straighten Full-Fashioned Needles"

"We have one copy of your pamphlet 'How to Straighten Full-Fashioned Needles,' a reprint . . . would like to obtain approximately 50 additional copies."

ROBERT F. CLAUSSNER
Claussner Hosiery Co.
Paducah, Ky.

● Ten reprints are given with each 3-year subscription to TEXTILE INDUSTRIES.

WE TRY TO ANSWER ALL OF THEM

The job of a magazine which serves its industry is not finished when the book is put to bed. Of course there's always the next one to get out, but editors find plenty to keep them active. One job is service to the readers. Inquiries pour in, and all of them are answered—to the best of our ability. And each gets a personal letter; no mimeographed form. Here's a sample of mail which crosses the desk:

"Can you recommend a good book in dyeing and printing which is published in the U. S. A.?"

"Are most of the windowless type mills single story structures, or do they include multiple story buildings as well?"

"I need a secondhand in weaving. Have you any suggestions?"

". . . cannot tell from photographs just where and how the loom part casting is applied. Can you furnish further information?"

"Has fishing gone to the dogs in the Southeast?"

". . . are contemplating the installing of a cotton section beamer and a warp slasher . . . like to have list of publications that would help us in the care and operation of this equipment."

"Can you tell me how the air current affects the quality of work on a single-process picker?"

". . . interested in bleaching and dyeing cotton grey goods. Where can we obtain such machinery . . . cost of same?"

"On checking some constants . . . find error . . . shouldn't this be .2805?"

". . . wishes to illustrate how cotton is spun and subsequently woven into cloth . . . obtain 8x10 photographs. Can you supply us with these prints?"

". . . wish to become a member of the American Cotton Manufacturers Institute. Please send application forms."

". . . books we should read and the firms to whom we should apply to obtain suitable balancing machines and apparatus?"

". . . information on quality of work produced on the card by changing the distances between the top flats and the cylinder."

". . . appreciate your giving us a list of tests for mental and physical efficiency made by manufacturers when engaging new personnel."

"Could you send me a list of mills which sell small lots of warp and filling yarns for hand weaving?"

". . . want book similar to one on 'Cotton Staple Fabrics' and an identical book on rayons . . . infinite variety of cloths now being made with filament and staple fiber."

". . . would like to know if manufacturers process nylon waste into spun nylon or is spun nylon made only by DuPont? Can this be used for full-fashioned hosiery?"

". . . where may we obtain copy of 'The Road Ahead' by J. T. Flynn?"

"On page 109 . . . describe bobbin conveyor system . . . would like to have name of mill in which conveyor is installed."

". . . send name of good book on wool carding and spinning."

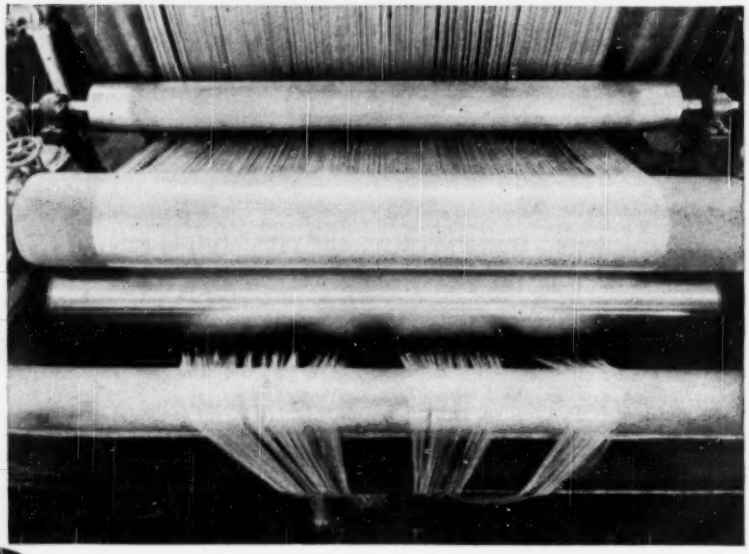
". . . interested in purchasing a hand loom . . . can you give name of manufacturers?"

"Can we have permission to reproduce article in your magazine?"

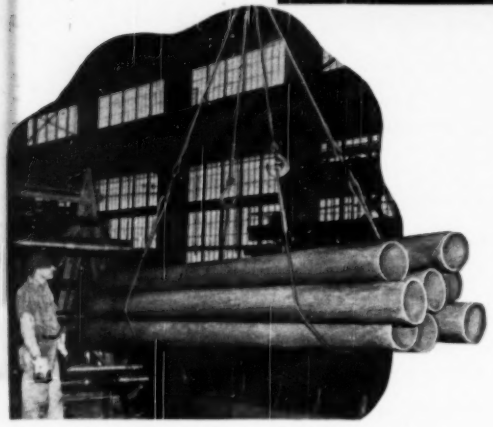
". . . have any figures on labor turnover in the textile industry?"

Make Slasher rolls from Seamless MONEL tubing

The easy way!



Monel covering eliminated the need for frequent refinishing of these rayon slasher rolls. Rolls such as these can now be made from Monel extruded tubing subsequently machined to finished size.



Lifting a load of extruded tube shell at Inco's Huntington, W. Va. mill. Monel, Inconel, and Nickel seamless extruded tubing is now available in outside diameters up to 9¼".

Seamless extruded Monel tubing is now available in outside diameters up to 9¼", with wall thicknesses from ¼" to ⅝".

This means that you can make rustproof, corrosion-resistant slasher and other textile rolls easily and economically by machining the seamless tubing down to size. Monel* is readily machinable; will take and *keep* a smooth polish.

Monel is highly resistant to the destructive action of many dyehouse chemicals including all sizing compounds.

Cleaning is easy, too. Flushing with fresh water is usually all that is needed to keep Monel surfaces clean.

Whenever you need rolls . . . new or replacement . . . check with Inco. You may find that the newly available seamless extruded tubing will enable you to get *better* rolls at an economical cost.

For further information and quotations, write directly to Inco.

EMBLEM OF SERVICE

NICKEL (INCO) ALLOYS

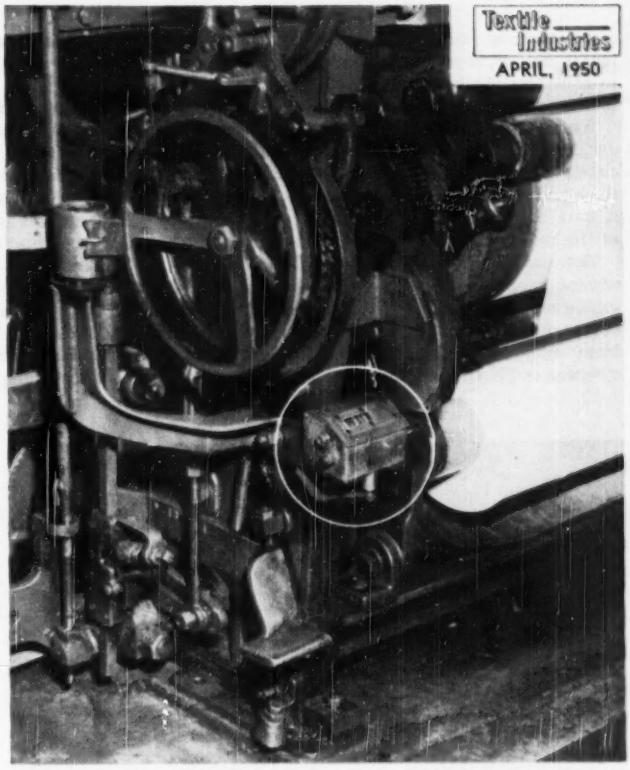
Monel* • "K"* Monel • "R"* Monel • "KR"* Monel • Nickel "D"* Nickel • "L"* Nickel Inconel* • Duranickel* Permanickel* • Inconel "X"*

THE INTERNATIONAL NICKEL COMPANY, INC.

67 Wall Street, New York 5, N. Y.

*Reg. U. S. Pat. Off.

CUT METERS have provided a practical solution to many mill problems. Shown here is a line of C&K looms weaving nylon and rayon fabrics. Arrow points to cut meter on one of the looms.



CONVENIENT LOCATION for easy accessibility makes possible a fast and accurate determination of yardage on the looms by simply reading the meters.

Renewed Interest in Cut Meters

WEAVING MILLS are discovering new and advantageous uses for cut meters on looms. Although the cut meter* is by no means a new-comer to the industry, in recent months the weavers have demonstrated a keen and renewed interest in them.

TEXTILE INDUSTRIES has conducted a survey to determine some of the unusual reasons for cut meter installations, and the following story is a result of the investigations.

Staff Prepared

EXCLUSIVE TI

Photos courtesy Veeder-Root, Inc.

Spun Rayon Plant. Loom Automatically Stops. All of the looms in our spun rayon plant are equipped with cut meters. They can, of course, be set for a predetermined yardage. When this yardage is woven, the loom automatically stops.

When the weaver goes to the loom to restart it, he finds that the length of cut has been produced, and the cut meter must be reset to zero and the cloth taken off at this point.

If, for any reason, a smash occurs during the life of the warp that cannot be replaced and a cut in the fabric is necessary, this piece can be taken from the loom irrespective of its yardage. The cut meter is then reset at zero to start a new standard and predetermined cut.

We think this is decidedly better than using cut marks for determining the length of the cut because the weaver often fails to see the cut mark when it comes

*Cut meters record directly in yards or meters, based on the amount of cloth passing over the sand roll. Cut meters can be wired to stop the loom at the desired length or to light a signal light for the cloth doffer.

over, thereby making an odd length cut; or, it will be necessary to roll the cloth back on the loom to the cut mark.

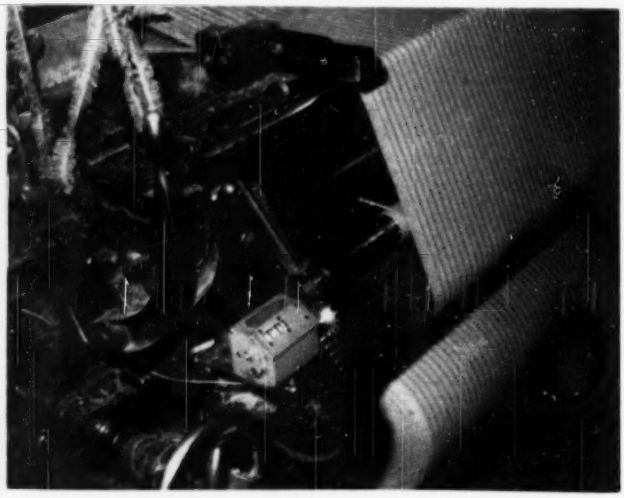
When the cloth is rolled back on the loom, this often causes a sizable yardage to be piled in the floor and wrinkled or soiled while it is winding up on the cloth roll of the loom.

The use of cut marks has the advantage of having a predetermined number of cuts on the loom beam, and the last piece off the loom will be a standard cut; whereas, with the cut meter, the order to locate the cut mark and doff the roll of cloth with the proper yardage.

This rerolling was not only time consuming for the cloth doffer, but it frequently resulted in creases developing in the fabric, and in dirty cloth. The elimination of these creases was our principal reason for installing cut meters.

In addition to this, however, it has eliminated the slight amount of work and cost of maintaining the cut markers on the slashers.

The number of short lengths



On woolen goods where leases are tied in the warps, a saving is made in the beamer room by omitting the leases and increasing the production by the amount of time required for this operation. Also, eliminates danger of lease causing a smash on the loom.

last piece may be an irregular length. However, taking all of this into consideration, we are convinced that the advantages to be gained with the use of cut meters considerably offset this one disadvantage.

Filament Rayon Plant. Eliminates Creases in Rerolling. We have installed cut meters on Draper XD looms. Weavers usually operate 48-loom sets, and under these conditions they frequently missed a cut mark (before installation of cut meters) so that it was necessary for the cloth doffer to reroll a considerable length in has also been reduced because the loom fixers or weavers have been instructed, after receiving the overseer's approval, to doff any pull-ups that would have to be cut during examination and to reset the cut meter. This results in some variation in length of the last cut on the warp.

The cloth doffers are instructed to inspect the amount of yarn on the loom beam before doffing the next to last cut on the loom, and if they believe there is less than one-half cut remaining, to reset the cut meter without doffing the roll. Therefore, our last cuts vary from one-half to one and one-half the normal length.

The installation of the cut meters has definitely reduced the amount of fabric degraded for creases and has increased our percentage of fabric segregated for light shades.

Drapery and Upholstery Mill. Reduces Short Ends and Remnants. There were several reasons why we felt cut meters would be suitable for our job:

(1) Ours is a novelty job and most of our warping is done on the silk system; therefore, considerable time was spent on the warper putting in the cut marks.

(2) Since all of our weaves are novelty and we are weaving short cuts of 50 yards, we have certain defects near the end which are not salvageable; when the cloth was cut at the cut marks, of necessity, we had a good many short ends. By the use of cut meters, this has been eliminated.

We also had several styles which could not be held by the loom if two cuts were run without doffing. When the cut mark was passed up by the weaver, it was then found that the loom would not take the full two cuts; the cloth had to be doffed.

Specialty Mill. Eliminates Seconds from Cut Marks: Reduces Customer Complaints on Yardage. Being a specialty mill it is very important that on certain fabrics we furnish the exact yardage to our customers. This is due to the fact that a customer will usually order a pattern in several colors and will want the yardage to come out exactly on each of these colors.

For instance, if we should run the cuts on one particular color short, the customer will then have extra yardage on the other colors, or the reverse would be true should we make the cuts too long.

Then, too, we have the problem of a certain portion of our business being sold to the jobbing trade. These men, of course, would like to sell the largest amount possible that is accepted by the trade, which in this particular

instance is a 55-yard cut. Should we ship less than 55 yards, naturally the jobber will complain since we are cutting his orders short and are not letting him make as large a sale as he would ordinarily make. On the other hand, if we make too large a cut, then the customer will complain to the jobber that his order is being stuffed or overshipped, which is practically as bad on us.

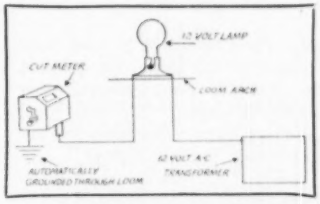
Due to the very nature of our business we must have uniformity of cuts, and due to so many styles, weights, different number of ends, etc., running, we are unable to get cut uniformity by cut mark measurements; we can get uniformity with cut meters.

We have found, too, that we made quite a number of seconds because of cut marks.

When cut meters are used, there is also a certain amount of gain in the weaving department. They relieve the supervisors, fixers, cloth doffers, etc., of the necessity of either looking for a cut mark or of constantly measuring the roll of cloth to see if it is large enough to doff. Our cut meters are set so that the loom automatically stops when the cloth should be doffed.

Heavy Goods Mill. Accuracy of Length. We have looms equipped with cut meters, and we use them specifically for running special length goods. Some of our customers specify certain lengths; for instance, say 200-yard roll and will accept nothing under 200 yards or over 210 yards. In such instances the cut meter is the only method we know of in determining correct yardage due to variation in stretch, inaccuracy of cut marking devices, etc. The cut meters, of course, eliminate the necessity of making the cut marks.

No Marks Permitted on Cloth. Cut meters are used at our plant for the purpose of eliminating cut marks. A predetermined number



Sketch showing manner in which cut meter may be wired to turn on light and signal weaver when predetermined length of cloth has been made.

of yards was needed, and we did not desire to mark the cloth in any way. Cut meters were the logical solution.

Other Uses for Cut Meters. The foregoing reports from mills indicate how the use of cut meters solved individual problems. Other useful and practical benefits from cut meters have been given as follows:

(1) Better control of subsequent finishing or dyeing operations, holding true shades, etc.

(2) On tinted, mixed color, or dark warps, the problem of an easily visible contrasting cut mark is eliminated.

(3) On woolen goods where leases are tied in the warps, a saving is made in the beamer room by omitting the leases and increasing the production by the amount of time required for this operation. Also, eliminates danger of lease causing a smash on the loom.

(4) Weaver is relieved of watching for cut marks and thus can concentrate strictly on weaving.

(5) Less supervision is required when cut meters are used.

(6) Saving in waste. A bad spot in the cloth between cut marks results in two short cuts, under some mill systems. Cut meter permits doffing at bad spot and resetting cut meter for proper length.

(7) Where finishing operations require sewing of cuts together, less sewing is required.

(8) Cut lengths can be easily changed when different lengths are required.

(9) Inventory of work in process. A reading of the cut meters makes possible a fast and accurate inventory of yardage on the looms.

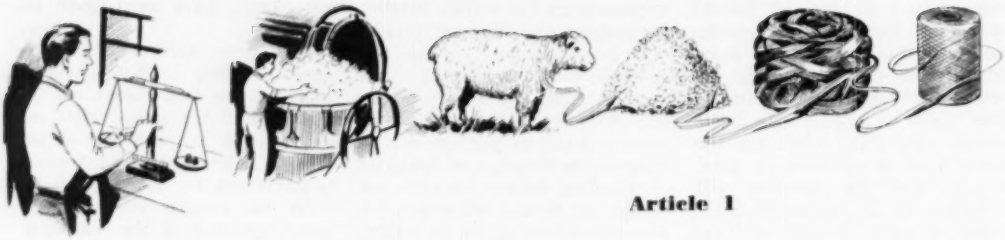
Forty Years of Textile Lighting

February 3, 1909, our first textile lighting recommendation was made, and as in practically every recommendation since that time, we were told our layout required too high wattage, .3 watt per square foot. This lighting, for white cotton spinning, was for extension of an existing spinning room.

The original lighting used 16 C. P. carbon lamps, 16 ft. spacing, in alternate alleys, and we have since calculated the existing lighting as approximately .2 foot candles. Our new layout used 16 C. P. carbon lamps, staggard 16 ft. spacing in each alley, resulting in approximately .4 F. C., or very extravagant lighting.

During 1919 we replaced the 16 C. P. carbon lamps with 75-watt tungsten lamps, on the same outlets, resulting in approximately two foot candles. During 1927 we replaced the 75-watt tungsten lamps with 450-watt Cooper Hewitt mercury lamps, on the same spacing, resulting in 15 F. C. During 1949 we replaced Cooper Hewitt lamps with 2/100-watt fluorescent lamps, resulting in 50 F. C. During 40 years this lighting intensity was stepped up from .2 F. C. to .4 F. C. to 2.0 F. C. to 15.0 F. C. to 50.0 F. C., in the same area, the same work, except during 1948 spinning was changed from white to colored yarns.

Extract from address by Frank E. Keener, General Electric Company, Atlanta; before Illuminating Engineering Society, Atlanta, March 1950.



Article 1

Dyeing Wool Stock, Tops, and Yarn

WOOL is a most heterogeneous fiber—not only from the standpoint of physical properties such as fineness, crimp, length, strength, elongation, luster and feel, but also with regard to its varied reactions to dyestuffs.

The breed of the sheep from which the wool is shorn or pulled, the land on which the sheep is raised, what he eats, the amount of exposure to air and sunlight—all bring about extreme diversity in dyeing behavior.

Effect of Quality on Dyeing. Consider, for example, the effect of fiber fineness. Two well penetrated dyeings made under identical conditions with 36s and 60s wool showed that although the coarser 36s wool absorbed 17% less dye, it was considerably heavier in shade. Or, to state it another way, when both lots of wool were brought to the same dye content, the finer 60s wool appeared only about half depth. The finer yarn has more light reflectance and for that reason appears lighter.

Wools of extremely varied properties should not be mixed. A study of blending of fibers illustrated the importance of this. Two sets of fibers were compared: one contained dyed fibers blended with a certain percentage of white; and another set was prepared with the same average percentage of dye, uniformly distributed however. The difference in appearance was amazing.

The mixture of 4/5 dyed with 1/5 white fibers appeared only 1/5th the depth of the corresponding dyeing containing 80% as much color; 6/10 dyed fiber and 4/10 white was only ⅛th as deep; while 4/10 dyed and 6/10 white was only 1/10th the depth of the 40% dyeing, etc.

Now if 10, 20 or 30% of the fibers in a yarn or fabric are not dyed (a phenomenon known as "fiber selectivity"), consider then the loss in appearance because of lack of uniformity in dyeing. It follows then that if only 20% of the fibers are poorly dyed, the result would be considerably less pleasing than the same fibers using 80% as much dye; they lack solidity and richness. This effect is commonly known among wool dyers as "skitteriness" or "skittery" appearance.

Variation in the quality of the wool is not the only reason for different dye affinities, however. Certain chemical and physical changes that occur before the wool reaches the dyer, have important effects. One of these is exposure to light and atmosphere, resulting in "tip-

By ROBERT W. JOERGER

EXCLUSIVE

THIS is the first of a series of articles devoted to dyeing of wool in loose and spun forms. Recent developments in the field of coloring wool raw stock, tops or slubbing, and yarn are presented, along with many practical suggestions for the improvement of dyeing techniques.

The author will be remembered for his "Processing Procedures for Modern Yarn Dyeing" and "Rayon Yarn Dyeing" published in this magazine in 1946 and 1948 respectively.

Save the articles as they are published and they will serve as a handy reference library on the subject.—The Editors.

py" dyed wool. The cause of this phenomenon long remained a mystery. How its effects were overcome will be detailed later.

Effect of Chemicals. Some treatments that make wool dyeings lighter are: grease or oil left in yarn or fabrics; chlorination; resin treatments which may be prevalent on re-worked wool; anionic agents, such as those used in modern scouring or dye bath assistants; wool bleached by storing or peroxide. Increased affinity of wool for dyes is noted where the surface of the fiber has been affected by excessive use of alkali or sulfoxylate treatment (as in stripping), by cationic agents and even by boiling water when treatment is long or hot enough as in crabbing and other processes.

If a batch is uniformly treated with any one of these chemicals, it will not act the same as a normal lot, making costly adjustments necessary. If the batch is not uniform, some parts of it having received more severe change or damage than others, then uniform dyeing becomes much more difficult to obtain.

Such lack of evenness in the stock may be the result of poor neutralization after scouring, overbleaching or over-stripping of certain parts of a lot not kept in proper motion, lack of control during chlorination, or unequal disposition of oil or grease even while scouring or rinsing, etc.

Reworked wools are subject to these chemical variations to a greater extent than the virgin wools. Lack of knowledge of the properties of the source and history of the fibers makes for more dyeing problems.

Properties of Dyestuffs Vary. Having reviewed the dyeing from the standpoint of the differences in wool, let us now consider the acid dyes including those which are to be chromed afterward. Here we find differences too: some tend to dye level and are easy to control; others do not dye uniformly, even on the best of wools, and they accentuate the variations in mixed stocks; and there is an intermediate group bordering on both of these tendencies.

Unfortunately, the most level

Machinery for Dyeing Wool

THE MACHINES used in dyeing wool are constructed according to the state of the wool to be processed, since wool—unlike most fibers—may be colored at any stage of manufacture. Wool may be dyed in the loose or stock form, as slubbing or top, as yarn, or as piece goods. Since this discussion is limited to the dyeing of the loose and spun material, only machines for coloring wool in these states will be considered.

Raw Stock Dyeing Machinery. Loose wool stock is dyed in two different types of machines: (1) the open type machine, and (2) the closed or pressure type. Operation of both types of machines is similar in that the stock is stationary while the dye liquor is forced through the mass by means of a pump or propeller.

During the recent war a continuous process for dyeing wool stock was developed; however, its application has been limited to indigo dyeing. The machine used for the continuous process closely resembles the raw wool scouring train.

Top or Slub Dyeing Machinery. For the dyeing of tops, three principle methods are in use: (1) Spindle process wherein several balls of top are placed on perforated spindles enclosed in a tank (open or closed) and dyebath is circulated by pumping it through the balls; (2) Abbott process in which the top dyeing equipment comprises a specially designed gill box through which the top sliver runs (in an untwisted form) and from which it is then wound under tension on a perforated metal dye spool; the dyeing is accomplished on this spool which is locked in place over an orifice in a specially designed dye kettle; (3) Pot or can dyeing process which consists of placing balls of top into vertical cans with suitable perforated lids and bottoms through which the liquor enters and penetrates the material.

Yarn Dyeing Machinery. Wool yarns are dyed in the hank or skein form and also in the package form.

The dyeing of hanks or skeins is most commonly done in machines where the yarn is suspended on either narrow rods, sticks, or cords, and then is grouped into blocks which are placed in the machine. The yarn remains stationary while the dye liquor is agitated.

Package dyeing is generally done in the same type of machines as those used for raw stock dyeing. Special yarn carriers are provided which are built to accommodate 24 to 500 packages, normally four per spindle. These spindles are either perforated pipes or fluted metal rods with three or four ribs.

Dyeing of yarn on jackspools or large dye spools has in recent years become very popular because of the time-saving factor involved. Two processes are in use: (1) The Franklin process in which the yarn to be dyed is wound onto a jackspool with a perforated barrel; spools are placed vertically in a kier for dyeing. (2) In the Abbott process, the machine used for dyeing tops, as previously mentioned, can be used for dyeing yarn wound on the dye spools.

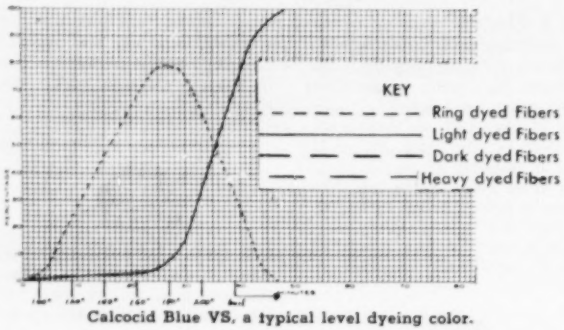
Machines for Drying the Dyed Material. In the drying of dyed raw stock, the same machines are used as are employed in the drying of scoured wool.

Procedure for restoring dyed top or slubbing to the proper condition for drawing and spinning depends on the dye process and the handling of the process.

Special machines have recently been built for drying of yarns in hank or skein and package form.

Machines representative of the types mentioned here will be shown throughout the series.—Eds.

Effect of Time and Temperature in Dyeing Wool



Calcocid Blue VS, a typical level dyeing color.

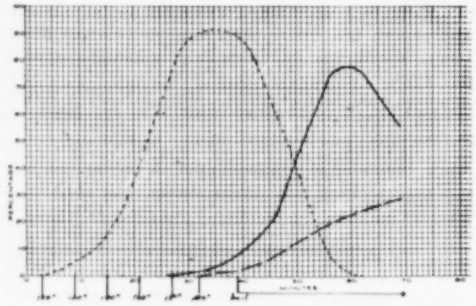
The relationship between temperature and dyeing properties of three typical dyes is shown in the accompanying graphs.

With Calcocid Blue VS it can be seen that the build-up to the highest per cent of ring dyed fibers is slow and the maximum of 80% is not reached until about 180 F. At this point, the diffusion of the dye into the fiber increases the number of completely dyed fibers. After boiling 12 minutes, the fibers are all dyed about the same shade.

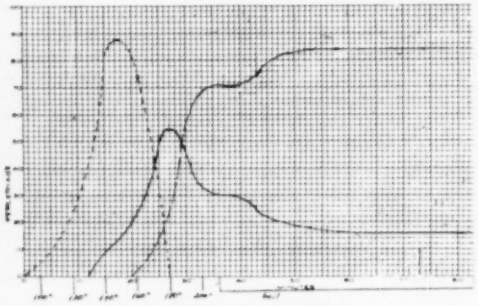
Milling colors are inferior to acid colors with regard to levelness. Note the graph for Calcocid Milling Orange 4R. The maximum number of ring dyed fibers is not reached until 200 F. At this point both light and dark dyed fibers begin to appear and boiling for 30 minutes does not redistribute the absorbed dye or give uniform fiber levelness.

Calcochrome Brown RH, dyed by the metachrome method, has about 88% ring dyed and 10% light dyed at 150 F. At 180 F. it has 55% light dyed and 45% dark. After a one-hour boil, there are 84% dark dyed and 16% light dyed fibers.

Courtesy, Calco Chemical Division American Cyanamid Co.



Calcocid Milling Orange 4R Conc.



Calcochrome Brown RH.

dyeing acid dyes do not have some of the other desirable properties such as fastness to wet treatments and to alkali. On the other hand some of the unlevel types have such excellent wet fastness that their use becomes mandatory, and the dyer must devise the most satisfactory methods for applying them.

Levelness. Let us first examine the term "levelness." In the gross sense it means the dye has been well distributed throughout the general mass—be that a pile of loose wool, a skein of yarn, a package of yarn, or a piece of fabric. Proper control of the exhaust rate of the dye solution has left no part of the mass very light or very dark. The mechanical means of bringing the dye solution in contact with the fibers has been quick and uniform enough so that no part of the mass is dyed more than another. In other words, the circulation control and exhaust control have worked hand-in-hand; when they do not, poor work is very evident.

The next degree of levelness depends on the fiber selectivity—whether some wool fibers dye deeper than others, or whether the dyeing has been carried to the point where the initial unlevelness has had a chance to even up.

Another variation of this is "tippy" wool where the dye is not uniform on the individual fibers. The color may be deeper at the tip, gradually getting lighter until at the body end it is considerably lighter or not dyed at all; with another dye, the reverse may be true. Both of these kinds of unevenness result in the previously mentioned skitteriness with its lowered color value and lack in richness.

Of course, wool dyers have been conscious of these problems and have devised means to overcome them. It is now our purpose to try to explain some of these and to examine the controls that have been contrived.

If small pieces of wool are removed from time to time during the progress of a normal dyeing, whether in the dyehouse or laboratory, the first observation is that the shade gradually gets deeper as the dyebath becomes exhausted. A more trained eye will see that even after the greater part of the dye is absorbed, the wool is not uniformly dyed; and that it may or may not become level as the time at the boil is extended. These observations are well known but qualitative.

With the use of a microscope, the lack of uniformity becomes more vivid and capable of mathematical treatment if one has the patience to count the fibers from such samples and put them roughly in these categories: partly or ring dyed; dyed light; dyed dark; dyed heavy.

All dyes collect on the outside of the fiber to form a deeply col-

ored ring at first. With level dyeing types of dyes, this ring gradually disappears until all the fibers are uniformly dyed and penetrated, and that takes place in a rather short time after boiling. With less leveling types of dyes some fibers are hardly dyed at all, some dye much heavier right from the start, and at the end of the dyeing the proportion of light and dark fibers is still sufficient to show a lack of uniformity. Some figures of three typical dyes will make this more understandable.

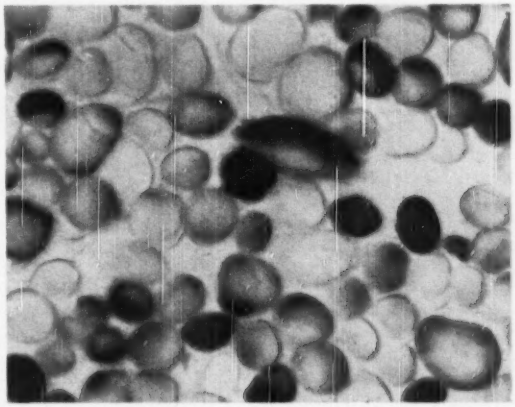
Calcocid Blue VS, a level dyeing type of dyestuff, shows a maximum of ring dyed fibers at 180 F; when the boil is reached the ring dyed and light dyed fibers are about equal in number; in 12 minutes all fibers are uniformly dyed.

With Calcocid Milling Orange 4R Conc., typical of the less level milling types, most of the fibers are ring dyed when the boil is reached and even after 30 minutes boiling, 60% of the fibers are light, 30% dark.

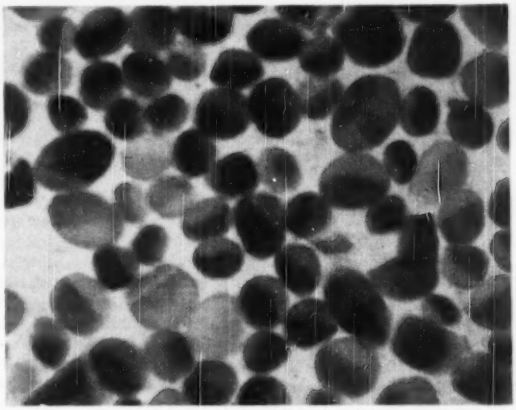
An even more extreme case is that of an after-chrome color, Calcochrome Brown RH, where the maximum of ring dyed fibers appear at 150 F. When the boil is reached, about twice as many are light as dark; after 60 minutes boiling there is no further leveling with the dyeing of the fibers distributed unevenly as 85% light dyed, 15% dark.

Why is there this variation in dye levelness?

Photomicrographs of Dyed Wool



Above, photomicrograph of cross section of wool sample dyed with Calcocid Blue VS at 180 F. **Below,** specimen from same dyebath after boiling for 12 minutes.



These are black and white reproductions of Kodachrome color photomicrographs made in the microscopical laboratory of Calco Chemical Division, American Cyanamid Co.

Dyeing Explained. Dyeing in a broad sense is the transfer of the dye from its solution to the fibers and getting it fixed there to a greater or lesser degree depending on the fastness. Note the words "transfer," "solution," and "fixing" for in the nature of each depends the ultimate explanation. Temperature, the ability of the dye to come off-and-on again, and the pH or the speed and nature of the fixation are all points to be considered.

For level-dyeing types, we find that the solutions are near molecular dimensions at all temperatures, that the dye particles are small enough to move in and out of the fiber freely, and that they are not exhausted or fixed until sufficient acid has been used to overcome the chemical resistance of the wool molecule. Distribution is uniform and quick, penetration takes place with little difficulty; however, these dyes have less fastness to wet treatment (especially where alkali is present).

The intermediate types are colloidal at low temperatures, molecular at higher temperatures. Longer boiling time is then necessary to level off the dye which may have been absorbed in larger particles at a lower temperature. The fastness to wet treatments is much better than the level-dyeing types produce if the temperature is not too high.

With the third type dye, the solution is colloidal at all temperatures. It is so aggregated that absorption does not begin until the wool fiber has been swelled. The pickup begins at 140 F, is apt to be at maximum at 180 F, but the dyeings made with this class of dyes are skittery and have poor rub fastness because of poor penetration. Even longer boiling may not distribute the dye evenly, because once it is absorbed it does

not come off easily. This means it is poor in leveling property but good in wet fastness. To control levelness, the speed of the dyeing needs to be reduced, and this is best done by pH control. For these dyes that point is nearer the neutral point or even on the alkaline side.

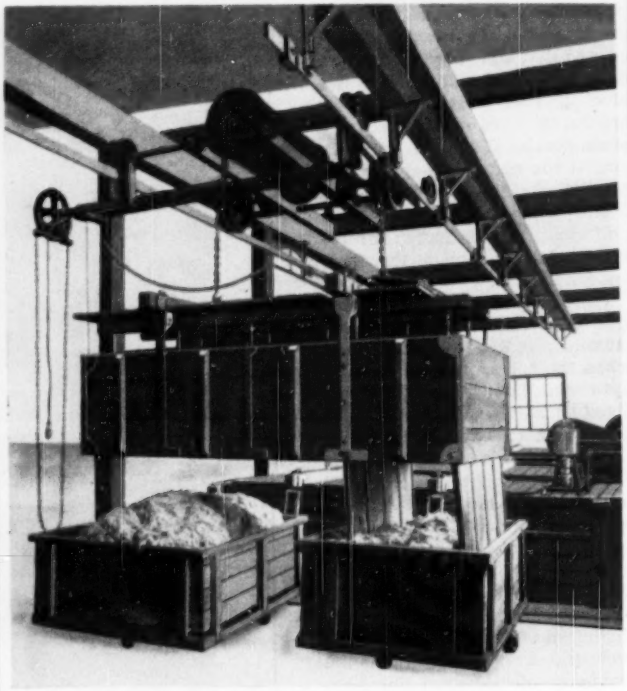
From the above, it may be inferred that both temperature and pH control are necessary, and though they work together, it is necessary for us to examine them separately for the time being.

Influence of Temperature. The importance of temperature is always in the dyer's mind. Generally, he brings the dyebath slowly to a boil and boils the goods until the maximum levelness is obtained. However, there are two critical points in such a procedure: (1) the point where the maximum exhaustion takes place (and where the most fibers become ring-dyed); and (2) the point where the greatest penetration and redistribution takes place (this is generally at the boil and is a matter of time).

An examination of the graphs in Calco Technical Bulletin No. 757 reveals that the critical exhaustion for the Calcochrome Brown RH is at 150 F, for the Calcocid Blue VS, 180 F, and for the Calcocid Milling Orange 4R, near the boil. For maximum distribution, it is best to allow more time at these points before raising the temperature. The speed with which the steam is added before this point is not so important. The speed beyond this point may be increased until the boil is reached; after that the time element is more important.

Referring to the graphs again, it will be found that the leveling type is uniform in 12 minutes, and there is not much point in extending that time. With the Milling Orange 4R, leveling continues even at 30 minutes, and though it is not good, the time the dyer wishes to go beyond that is dependent upon plant practice. With the Chrome Brown RH, leveling is difficult; more time helps it very little, though it is common practice to boil goods one or two hours to get the maximum leveling and penetration.

Hussong Open Type Raw Stock Dyeing Machine



The Hussong raw stock dyeing machine is a rectangular box divided into two sections, the larger section being the dyeing chamber and the smaller section housing the circulating equipment.

Wool to be dyed is packed into a removable metal basket, and by means of a hoist the basket full of raw stock is transported above and lowered into the dyeing chamber. The dye liquor, having been prepared prior to placing the cage of raw stock in the chamber, is forced through the stock by means of the circulating equipment.

Upon completion of the dyeing, the cage is lifted from the chamber and conveyed to a point in the room for unloading into trucks as shown in the accompanying photo.

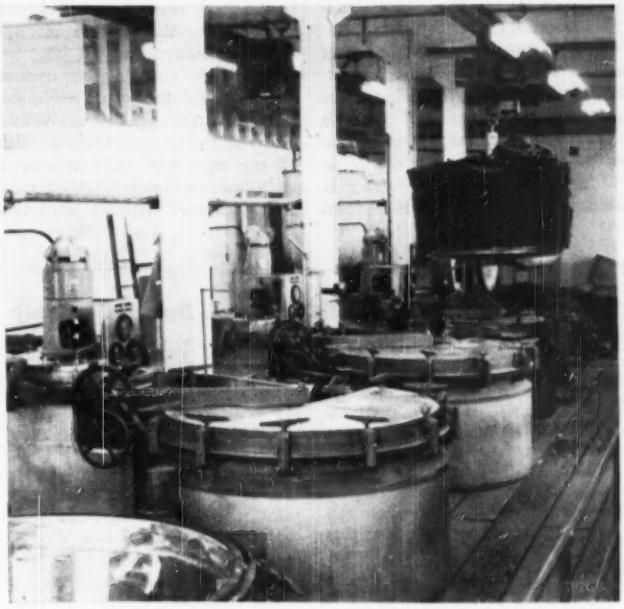
Courtesy, Hussong-Walker-Davis Co.

Time Also Important. Now it can be seen that in wool dyeing, exhaustion of the dyebath does not mean that the dyeing is complete. With colors such as Milling Red R and Polar Yellow R where most of the dye is absorbed at 170 to 180 F, the dyeings have not reached their full depth, brightness or fastness, especially to rubbing. Samples taken at that point look weak and skittery and rub badly. Not until the boil is reached and the dyeing carried 10 to 20 minutes further does the full shade develop and the penetration become sufficient to give good dry and wet crock fastness.

If the dyeing has been altogether too rapid and the dye particles are deposited in large, loose manner on the surface, even boiling does not produce the best results. Then the dyeing may be placed in a fresh bath with the optimum amounts of Glauber's salt and acid, brought to a boil, and run until redistribution has taken place.

From this it can be seen that temperature control is important for exhaust control, and time for

Riggs & Lombard Raw Stock Dyeing Machines



Representative of the closed or pressure type raw stock dyeing machinery are the Riggs & Lombard stock dyeing machines shown in this photo. There are three 500-lb dye kettles, one 250-lb kettle, and one 100-lb kettle.

All of these machines are similar in construction and operation. They are made entirely of stainless steel with the exception of the cover lifting and clamping equipment. The expansion tank is an integral part of the main tank and the whole unit including the cover is well insulated. Outside of this insulation is a protecting stainless steel jacket.

The motor is mounted above the expansion tank away from all water and chemicals and direct-connected to an impeller type pump which is located in the bottom of the expansion tank. A built-in duct runs from this pump to the center of the tank proper through which the liquor is pumped.

The removable basket which holds the stock has a patented center sleeve made in such a way that a perfect seal is obtained, with the result that the liquor is brought up to the top of the kettle and then forced down through the stock from which point it runs by gravity back into the expansion tank through a perforated screen which removes all small particles of stock, and is again ready to be pumped back into the tank proper.

The covers are hinged type and are equipped with safety type sample hole covers, eliminating the possibility of an operator getting burned. At the end of the dyeing cycle the cover is raised and the carrier with the stock is lifted from the machine by means of a hoist. And as there is a permanent fin built into the carrier, the stock can be dumped off of the carrier without handling in any way.

In the photograph above, note the materials handling facilities. Directly behind the second post from the left a container filled with scoured wool ready for dyeing may be seen. To the right of this, suspended over the machines, is a carrier loaded with dyed stock.

An instrument panel is located at the front of the expansion tank. It clearly shows the liquor level in the expansion tank, the pressure inside of the kettle when in operation, and the temperature of the bath.

Courtesy, Riggs & Lombard, Inc.

leveling control. Therefore, the modern dyer has resorted more and more to the use of instruments for the control of the steam supply. With many types of machines, these instruments bring the temperature up at a uniform rate; or where the dye or mixture needs special attention at some temperature where the dyeing should "coast along," cams are cut making the rate uniform up to these critical points and providing more time at those points as required.

pH Control. Leaving temperature control for the present, the rate and extent of the exhaust of a dyeing can be pH controlled by judicious use of proper amounts of acids and acid-forming salts.

Again, dyes are grouped according to their needs for little or considerable acid, and this chemical control is necessary in obtaining reasonable repeats from batch to batch and for levelness within a batch. However, adding a standard amount of acid to a dyebath does not insure the same results because of the variations in wool stocks.

Previous treatments may leave it with a pH of 9.0 as in the case of alkali-scoured wool; this needs to be buffered to an optimum dyeing pH. On the other hand, carbonized wool is distinctly acid and the pH may have to be raised to a point where rapid exhaust of the dyebath is not a danger. Recently, certain shrinkproof wools have been processed which are too acid for dyeing without pre-treatment.

In the case of either buffering or neutralization, uniformity throughout the lot is important. This may not be a quick process

as wool holds onto acids and alkalis tenaciously and comes to equilibrium so slowly that water rinsing is impractical.

Wool is actually less damaged at pH 2.7 than at any other point. Damage to the fiber increases gradually as the neutral point is reached; damage increases rapidly on the alkaline side. For example, boiling wool in distilled water is more harmful to the fiber than acid dyebath. Boiling wool at pH 8.0 (possible with residual alkalinity from soap scouring) caused three times the loss in strength that was incurred at pH 5.5.

Glauber's salt in the dyebath helps protect the wool, while salts like ammonium acetate act as buffers. Tables showing the pH values of the acid and salts mentioned with and without Glauber's salt and with and without wool have been published and are of great value in determining the proper conditions for a particular dyebath.

Wool itself injects an important variable. As pointed out before, it may be alkaline if scoured with detergent solutions, and quite acid if recently carbonized. Sometimes the residual acid from carbonizing makes further additions unnecessary, but it is an unknown factor until tested. The importance of the pre-treatment previously mentioned is perhaps now more evident.

Resort is made to pre-treatment with dilute ammonia, bicarbonate, or dilute acids as the case may be. The rate of transfer of small amounts of acid through a lot of wool was recently studied. Whereas, ¼ to ½% acetic acid distributed itself evenly in 5 to 10 minutes, a like amount of sulphuric acid was not uniformly taken up in 30 minutes; yet a 4% sulphuric acid (based on weight of wool) was even in the shorter time.

For dyes that work best at pH 4.5 or thereabouts, it is better to use acetic acid rather than small amounts of sulphuric; for a pH down to 2.0 sulphuric acid is satisfactory. Glauber's salt seems to accelerate the transfer. For these pH's, buffer salts had to be used in too large amounts to be practical but they are used where the pH runs from 5.0-7.0.

Some dyes of the acid class, i.e., Azo Rhodine 6B, will not dye well without acid; others will dye well near the neutral point—for example, Alizarine Blue Black B and others of the milling and metachrome types where the dyebath is started at a relatively high pH with acid-forming salts and Glauber's salt. Recently published is a list of the pH habits of some forty dyes (*American Dyestuff Reporter*, 1948, pp 149-164). Such information is helpful in selecting dyes of similar pH inclinations for use in combinations.

A third class of dyes requiring even more acid, are the metallized dyes. At pH 2.5 (obtained with 4% sulphuric acid) they exhaust well, but the dyeings are selective and skittery; at pH 1.9 to 2.0 using 8% acid the dyeings show little fiber-to-fiber difference, are more uniform and also 20 to 40% deeper.

Obermaier-Stienen Wool Raw Stock Dyeing Machine

Shown here is the Model N U A P R wool raw stock dyeing machine consisting of a circular dye vat (right), separate dyestuff feeding tank (center), and circulating equipment.

Loading of the machine is quite simple. Raw stock is usually blown into the dye vat while circulating water downward so that further packing is unnecessary. The stock rests on a removable perforated plate which forms the bottom of the dye tank. This plate is equipped with chains so that the entire batch of dyed stock may be removed from the tank in one operation by a hoist and dumped wherever desired.

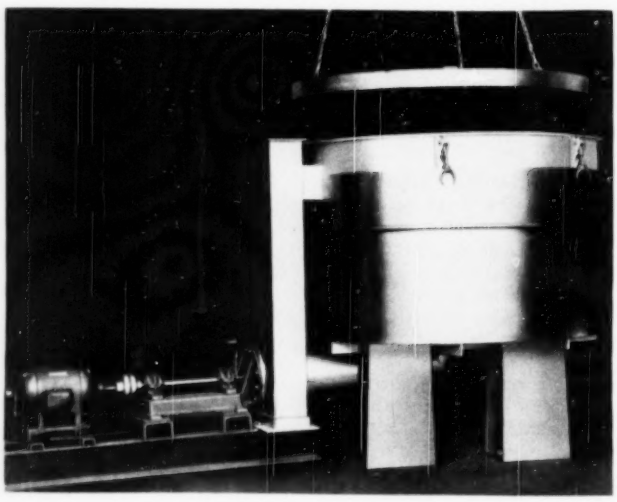
A special cover for the tank is employed, having a compression plate which is lowered on the stock by means of a hand wheel. This arrangement permits easy adjustment to obtain the proper amount of compression of the stock.

The steam intake is located in the dyestuff feeding tank so that there are no areas of excessive heat near the material being dyed. All additions of dyestuff or acid are made through this separate tank, and they are thoroughly mixed by the circulating system before passing through the material.

The circulating system provides a high rate of flow through the material at low pressures so that no channelling or fiber disturbance occurs, according to the manufacturer.

Other features include: Easy sampling of dye liquors without opening the machine; automatic reversing device; stainless steel construction.

Courtesy, Standard Fabricators, Inc.



The use of these amounts of acid for other dyes may result in poor dyeings. With a chrome brown the dye would be precipitated on the surface, making a weak (10%) dyeing of poor rub and light fastness; on reboiling in a fresh bath, however, this dye can be redistributed to full shade, levelness, and excellent crock test.

Control of the dye rate and degree of exhaust by pH manipulation is probably an important factor. Normal acid dyebaths with the usual amounts of sulphuric acid and Glauber's salt were examined with this viewpoint in mind, and the exhaust rate was found to be very high with half of the dye going on in 2 to 3 minutes. A more uniform method, distributing the exhaust evenly over 60 minutes has been devised and will be discussed later.

Tippy Wool. Temperature control and pH control are two great tools in the hands of the dyer. However, neither are very effective in getting more uniform work when the cause is the "tippiness" of the wool.

It will be remembered that such wool has been unevenly exposed to weather and light so that the tip end dyes darker or lighter that the root end, depending on the dyestuff used. By using dyes which have this opposite tendency, a test method for tippy wool has been devised: Palatine Fast Pink BNA, Fast Light Yellow 2G and Alizarine Astrol B dyed together on tippy wool will result in extremely red fibers on the exposed end and blue shades toward the body end. Or by use of a fluorescent violet, the tip ends will glow when viewed under ultraviolet light.

The usual classification of dyes into level and unlevel groups does not apply here as representatives from both show this extreme variation. About two years ago, a list of 650 dyes with ratings indicating their tendency to dye tippy wool uniformly, poorly, or moderately well was published (*American Dyestuff Reporter*, 1947, pp 486-506). From this information it can be seen, for instance, that Anthracene Brown LE dyes the tips lightly and the body portions strongly, while Acid Anthracene Brown PG dyes the tip ends deeply and the body ends hardly at all. It is reasonable to suppose that a mixture of these two will give more level dyeings than either alone.

With mixtures using three or four dyes in combination, the problem is much more complicated. No matter how some dyes were used very strong contrasts from the tip to the other end resulted. Sometimes changing one or two of these components produces satisfactory results. In other words, dye selection is a very important consideration. The use of this table will aid in obtaining the best mixtures.

Another method of approach to this problem is the use of auxiliary agents in the dyebath that tend to overcome this inclination to dye tippy. The results of mill trials indicate that they are very effective; uniformity was very good with substantial increase (10 to 30%) in color yield. Quicker and better exhaust of the dyebath reduced the processing time with no sacrifice of brightness or fastness; a softer, more pleasing hand was realized.

These substances are manufactured by various companies under such names as Anthomine (Arkansas); Peregal TW (General), Cystol W (Geigy), X-Tip (Drew), etc.

Although laboratory trials indicated that an amount of 2% was necessary, mill trials showed that usually ½% was sufficient to give excellent results. In the case of one color where 2% was used, the unevenness reversed itself—the part which dyed heavily without the agent now dyed too light. When the right amount is established, this does not occur. This dye, Acid Anthracene Red 3B, is so sensitive that it may be used for evaluating the reliability of the various agents offered.

(Article 2, to appear in an early issue, will cover procedures and practical suggestions for the application of acid dyes to wool.)

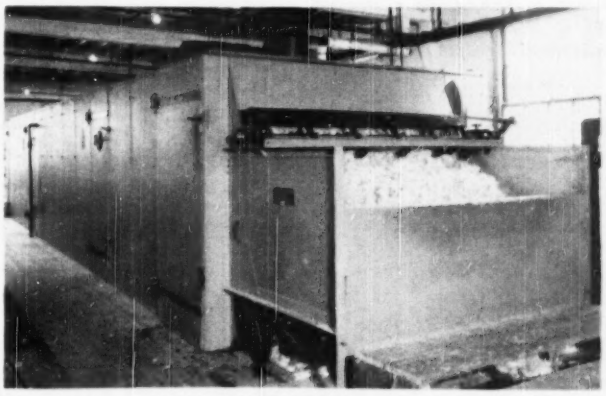
Equipment for Drying Dyed Wool Stock

After wool raw stock is dyed, it must be properly dried prior to further processing.

The same machines as used in drying wool after it has been scoured are used for the drying of dyed wool stock.

Shown here is the Proctor Super Type, single conveyor dryer for wool raw stock. Wool is dumped into feeder hopper at entering end (shown here) and emerges at other end dry and ready for storage or immediate processing.

Courtesy, Proctor & Schwartz, Inc.



MAGNETIC SEPARATORS Require Engineering

Existing Practical Installations Discussed

By HENRY HERSEY

Southern Engineer
Eriez Mfg. Co.

THE PROBLEMS created by tramp metal in textile mills, while exceedingly serious, are still solvable when the proper permanent magnetic devices are installed correctly in the processing line. The solution to the entire problem lies in the ability of a magnet manufacturer to build the right magnet for any given job, and the ability of his field engineers in placing the magnetic device properly in the mill. Both are so important that in approximately 85% of the cases, an installation will prove unsatisfactory if either is omitted.

It is a sound principle, when tramp iron problems present themselves, to consult with a manufacturer of magnetic equipment or his qualified representative.

Fire Prevention and Machinery Protection. The problems created by tramp metal in textile mills vary with the mill and the type of stock processed. For example, the main purpose of magnetic protection in a cotton mill is prevention of fire, while a worsted mill is interested in protecting machinery. Different types of equipment as well as varied application techniques are the two basic factors in solving tramp iron problems.

Before discussing actual magnetic installations, some background is required to familiarize the reader with the types of permanent magnetic separators available for textile applications.

Plate Magnets. The plate magnet (Fig. 1) is a flat unit as the name implies, made up of a series of powerful, stable, alnico castings. The castings are mounted on magnetic steel plates, surrounded by an insulation strip of non-magnetic material. This strip prevents magnetic leakage when the unit is installed in machinery. Because of its flexible design (it can be made any size), it is easily installed in existing, as well as new equipment. This type of magnet is used in a variety of installations and will be discussed later in this article.

Pneumatic Line Magnets. The magnetic hump (Fig. 2) is an adaptation of plate magnets. It was designed solely to remove tramp iron from pneumatic lines. It consists of two plate magnets in an enclosed rectangular sheet metal housing and is available for airlines ranging in size from 2¾ in. to 20 in. The hump causes material being cleaned to change direction, which creates a tumbling or mixing action. This tends to break up the flow of material, retards velocity, and allows the magnet to remove tramp iron.

Magnetic Pulleys. This class of magnetic separator removes tramp iron from belt-conveyed stock if depth of flow and belt speed are not excessive. Tramp iron removal is fully automatic. The principle of tramp iron removal is shown in Fig. 3.

Together with intelligent application engineering, these units provide the basis for a multitude of successful magnetic installations. Since the type of mill, whether wool, cotton, or other,

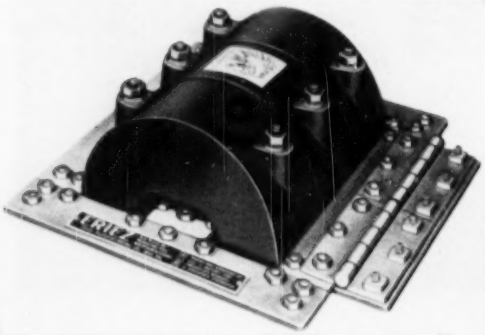


Fig. 1. The plate magnet, made up of a series of Alnico castings mounted on magnetic steel plates, surrounded by an insulation strip of non-magnetic material.

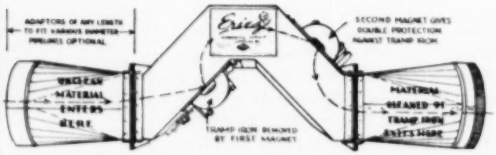


Fig. 2. The magnetic hump, an adaptation of plate magnets. It is designed to remove tramp iron from pneumatic lines; made of two plate magnets in enclosed metal housing.

determines various applications, it is advisable to discuss magnetic protection in that relation.

Cotton Mill Opening Room. The primary danger from tramp iron in the cotton mill is fire, while a secondary consideration is machinery damage. Generally, the opening room presents the most serious problem, but in those mills where waste is processed, it is estimated that the danger is ten times as great as that found in the opening room. The seriousness of the situation is best shown by the Associated Factory Fire Insurance Companies estimate that 78% of all fires in the opening room are the result of foreign metal in the stock.

In the opening room, fires usually originate in high speed opening machinery where fast moving parts strike a tramp iron spark and send a flash fire raging through the entire pneumatic system. Consequently, fire is not confined to the opening room, but in a matter of seconds is frequently carried to several buildings. A generally used piece of magnetic equipment for opening room use is the magnetic hump. Fig. 4 shows how the unit is installed in conjunction with a bale breaker and vertical opener. The hump in Fig. 5 is also ahead of the vertical opener but in this instance is being fed by a Saco-Lowell feeder. Still another installation, and probably the most common, is shown in Fig. 6 where the magnetic hump has been placed between the feed table and the vertical opener.

Plate magnets are also used in the opening room and are particularly adapted to certain makes of textile machinery. For example, Fig. 7 shows how a plate magnet is installed on the incline of a Centrif-Air Superior Cleaner. Extremely efficient results are obtained by this installation. Another application is to the Lummus Gyrator. The location of the magnet in this equipment is shown in Fig. 8.

One of the best applications that can be made in the opening room is to install plate magnets on the discharge end of feeders, which deliver stock to the belt conveyor leading to opening equipment.

Magnetic Pulleys in Opening. There are several magnetic pulley installations recommended for opening room use, all of which provide automatic tramp iron removal. At this point, it should be made clear that magnetic pulleys have certain definite capacities as to R.P.M.'s, burden depths, etc. It is wise to seek the advice of a "magnetic" engineer when installing this type of magnetic equipment.

Figure 9 shows a magnetic pulley installed as a head pulley in a feed table. This arrangement can be utilized for any type of opening equipment which is fed by means of a belt conveyor. The magnetic pulley in Fig. 10 is used in conjunction with an H & B bale breaker on the spiked apron.

Other types of installations can be made in the opening room, but usually these are of special design and are dictated by some unusual condition or unusual equipment.

In most instances, protection from fire can be provided by utilizing any one or combination of the installations described. There is always the possibility, however, that foreign metal can enter the stock after it leaves the opening room; therefore, many mills install magnets farther along in the processing line. For instance, many plate magnets are installed on the sorting table leading to pickers, cleaners, etc. (See Fig. 11)

Where spiked apron feeders are employed, a special magnet, fully approved by insurance companies, is used. A detailed description of this unit will be discussed under the heading of woolen mills.

Return on Investment. In conclusion, it can be safely stated that in practically all cotton mills where magnets are used, they have paid for themselves many times over. The Woodside Mill of Greenville, South Carolina, for example, found that in the first year of operation their magnets returned 5.4 dollars for every one invested. This was determined from the average number of fires experienced before and after the

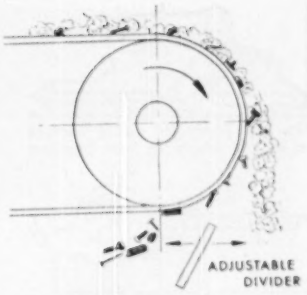


Fig. 3. Magnetic pulley. Tramp metal is held to belt while processing material passes on. Magnetic pieces are released beyond a divider, where they drop by gravity.

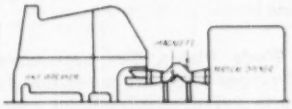


Fig. 4. Magnetic hump installed between bale breaker and vertical opener.

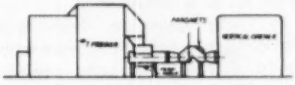


Fig. 5. Magnetic hump between feeder and vertical opener.

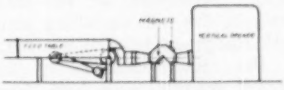


Fig. 6. Magnetic hump between feed table and vertical opener.

Fig. 7. Plate magnet on the incline of Superior Cleaner.

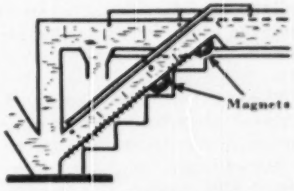


Fig. 8. Plate magnets on Gyrator.

Fig. 9. Magnetic pulley installed in feed table protects vertical opener from tramp iron.

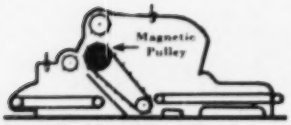


Fig. 10. Magnetic pulley located on spiked apron in bale breaker.

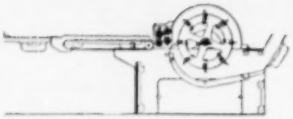


Fig. 11. Magnet on sorting table leading to feeder aprons on pickers, cleaners, etc.

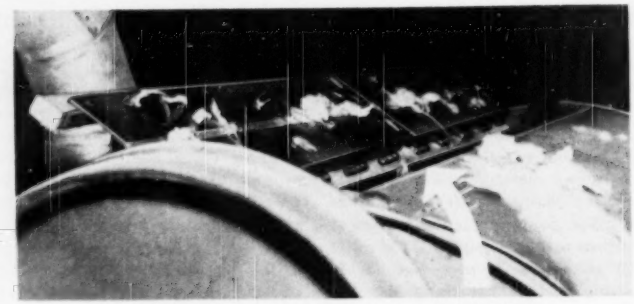


Fig. 12. Spiked apron magnet swung back for cleaning.

installation of permanent magnets.

Waste Plants. The importance of proper magnetic protection in waste operation cannot be overstressed. It is conservatively estimated that the possibility of fire in a waste plant is ten times as great as in a cotton mill.

In waste operation, there is a real challenge to the engineer who would provide magnetic protection. Much time and effort has been spent in working out satisfactory protection. In the final analysis, the mill installing magnetic equipment must follow closely the recommendation of the magnet manufacturer both from the standpoint of proper installation and feeding of material.

The card room is the first point of major importance in combating fire and machinery damage, as the greatest hazard exists at this point. Here spiked apron magnets (Fig. 12) should be installed on the feeders supplying the stock to the cards. This installation provides the ultimate in magnetic protection since stock is passing under the magnet in a slow, thin flow.

Where bale-breakers are used, a hinged plate type magnet complete with special lift handles can be placed above the slatted apron feed and the beater. The installation eliminates the fire hazard and protects high speed cleaners, including the beater, vertical opener and cleaner.

Figure 13 shows a magnet on a waste machine. The importance of proper hand feeding should be stressed since the removal of small metal such as ring travelers is dependent upon this operation.

Waste converters represent another piece of machinery which presents a fire hazard or can be damaged by tramp iron. Magnetic protection may be obtained by using the same type of installation as shown in Fig. 13.

The identical installation will serve as protection for thread breakers and finishers when they are fed with slatted feed aprons. Not only does this magnetic installation serve as a protection device against fire and machinery damage, but it assures a clean product for the customer, free of iron.

For some textile machinery a special extra strength plate magnet can be installed on the feed table followed by powerful plate magnets suspended over the material flow. This type of magnetic separator is usually furnished in two sections with special textile lift handles.

When one type of incline cleaner is employed, a magnetic pulley can often be used to excellent advantage.

The applications discussed are by far the most important considerations when dealing with magnetic protection, but it should be noted that there are many other installations, some of which represent special problems, because of new or unusual operating conditions.

Woolen Mills. In wool operations, permanent magnets are installed chiefly for protection of machinery, as damage from fire is remote. It is in the woolen mill that the spiked apron magnet (a special adaptation of the plate magnet shown in Fig. 12), is frequently mounted over the spiked apron feeder. Beginning with raw grease wool, an unusually good application is to install the spiked apron magnet on the scouring bowl feeder. This protects machinery all along the processing line, but unfortunately there are other sources of metal contamination further along in the operation. Every machine can be a cause of machinery damage since nuts, bolts, etc., are continually coming loose and falling into the stock.

Without doubt, woolen cards require the greatest protection. When metal goes through the card rolls the clothing must be replaced. One clothing for example, costs $400.00, which will just about pay for the magnetic separator. To protect cards, the magnet ordinarily is installed over the spiked apron leading to the mixing picker (see Fig. 14). Other items which have been considered important enough to protect, are squeegee rolls and Peralta rolls. For Peralta rolls, a special magnet is available. This device protects the rolls against damage from card wire shelling out on to the web.

In some woolen garnetting operations, extremely strong plate magnets are suspended over or under the web to remove very fine contamination. Very fine bandage goods and material used to clean lenses are excellent examples.

Where large amounts of wool sweepings are employed, it frequently pays a mill to purchase

a short belt portable conveyor utilizing a magnetic head pulley. This device quickly and automatically removes foreign contamination.

Rayon Rolls. The principal application for rayon mills is in the pipe lines through which liquids are pumped. The magnetic trap (see Fig. 15) is a unit specially designed for the removal of tramp iron in pipelines. It protects processing machinery such as pumps, grinders, screens, etc.

A popular application for this unit is between the calender rolls where a pump is being used. The magnetic trap is also adaptable for use in any mill where cloth is being finished.

An extremely critical problem and one which has defied a magnetic solution is the use of magnets on rayon crumbs. A great many installations have been made and field-tested but none has proved satisfactory. At present, development work is still progressing toward a solution to this end.

Importance of Application Engineering. From the standpoint of the manufacturer of magnetic equipment, the importance of application engineering cannot be overstressed because experience shows the finest magnet cannot do its job if it is improperly installed or unwisely chosen for the task it is to perform.

Many factors must be considered, some major, some minor, but all must be comprehended in the observance and understanding of field conditions. Accurate observation and good interpretation assure a practical and successful installation. The following factors are the more common ones which always should be considered:

Material Condition. Stock varies in consistency; some is soft, some hard, some stringy or fluffy. Each one must be dealt with accordingly.

Contamination. A second consideration is the type and amount of iron contamination found in the stock. Where stock is relatively clean and only an occasional piece of tramp iron need be removed, a plate type magnet of the non-cleaning variety should be the choice. If a great deal of tramp iron is in the stock, then a magnet with self-cleaning features should be specified. The average size of iron is another important consideration since larger pieces of tramp iron do not ordinarily call for a magnet of so great strength as smaller ferrous material.

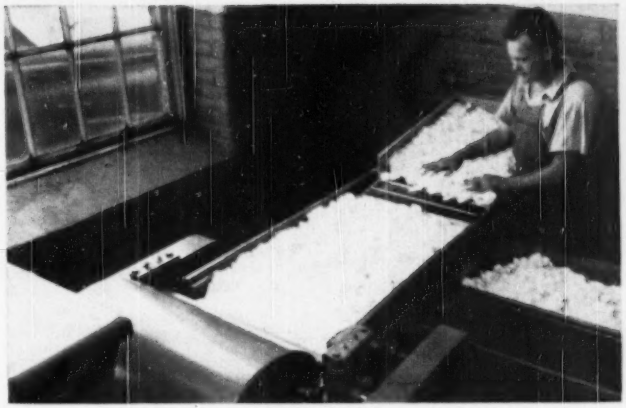
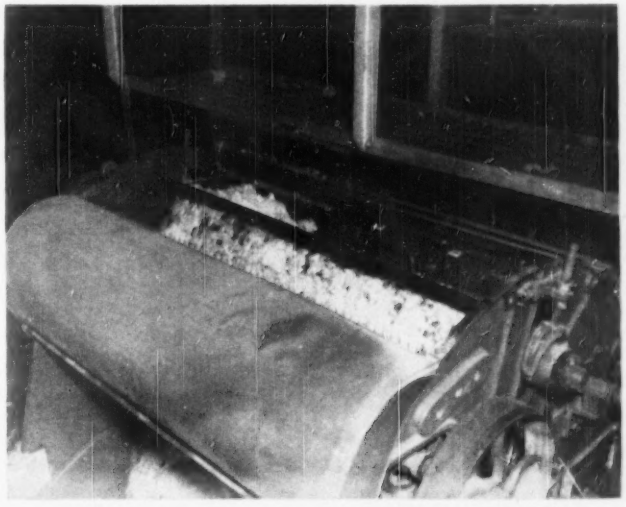


Fig. 13. Magnet on waste machine. Operator should be impressed that proper feeding is necessary.

Capacity. In many respects, a magnet is no different from other types of textile machinery. It has certain capacities which it can effectively handle. If these are exceeded, poor results will be the answer. This factor, more than any other, is ignored and invariably the blame is placed on the separator.

Recently, the vice-president of a large textile manufacturing concern complained bitterly that, though plate type magnets were satisfactory, the magnetic pulley was a complete failure. The case he cited in proof of his statement was found to be that of a mill in which magnetic equipment de-

Fig. 14. Magnet in wool mill. To protect the cards, the magnet usually is installed over the spiked apron leading to the mixing picker.



signed and installed to be run at 30 - 40 rpm was being operated at 90 rpm. The complainant was quick to understand when it was pointed out to him that the magnetic separator, just like the opening equipment it protected, must inevitably fail to do its duty if forced to work at two or three times its normal capacity.

Velocity. Tests made in the laboratory and in the field show that excess velocity is probably the outstanding cause for poor results.

An excellent example of velocity is the one just given where the pulley was operating at 90 rpm. At this speed, a piece of iron riding on the belt is literally thrown at high speed past the magnetic field. Since the surface of the pulley is rounded it does not have sufficient time to pull the iron to its surface.

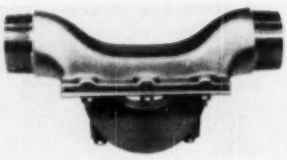


Fig. 15. Magnet for liquid processes. The magnetic trap is designed for removal of tramp iron in pipe lines. It protects processing machinery, pumps, screens, etc.

The magnetic hump is an example of a piece of equipment that was expressly designed to cut down velocity. It brakes the iron, causing it to slow down as it nears the magnet, thereby greatly increasing magnetic protection.

Installation. Proper installation is the fifth and one of the most important factors. Determining the ideal location for magnetic separation equipment through the proper analysis of all operating conditions, is frequently the most difficult task and requires experienced application engineering.

Suggestions for Running Irrigated Cotton

Tests made in the pilot plant of Cotton Research were conducted under conditions which simulate mill operations, save for the fact the work was done in conditioned quarters. It is recommended that the following procedures be employed in processing cotton from the El Paso area:

1. To avoid matting and tangling, the opener bars are set close; in the picker the distance of the beater from the grid bar should not be over ¼-in.

2. Picker lap must always be uniform and not too tightly packed—a prerequisite for good carding.

3. Card must be in good state of repair and ground often enough to avoid rapid increase in neps.

4. A card stripping at least every six hours helps to keep down nep count.

5. Vibration in the card must be held at a minimum.

6. Card speed of 8 pounds per hour is the maximum, with the longer staples calling for progressively slower speeds. Six pounds per hour will give good results with irrigated cotton.

7. Humidity may be critical for irrigated cotton because of its low moisture regain. Optimum relative humidity is between 50 and 60%.

8. Most mills overwork irrigated cotton. This may be overcome by slowing down processing equipment and wherever possible bypassing some of the openers such as, for example, the vertical opener.

9. Large mixer should be used whenever possible.

Card settings which have given consistently good results are: feed plate .017 (up); mote knife, top .012, bottom .010; licker-in screen, rear .010, front .007, top of bottom screen .017; back plate, top .017, bottom .022; flats, front .009, middle .007, rear .009; front plate, top .017 to .034, bottom .022; doffer to cylinder .007; comb to doffer .010; front screen 3/32; bottom screen, middle .034.

Extracted from a report "Fiber Properties and Manufacturing Performance of El Paso Area Cotton." Copies of the illustrated report may be obtained from either Cotton Merchandising Research, University of Texas, Austin, Texas; or from Cotton Research, Texas Technological College, Lubbock, Texas.

Report on Cotton Market Outlets

"Market Outlets for Cotton in Some of the Principal Cotton Fabrics" is a new report prepared by the Cotton Branch of the Production and Marketing Administration, Department of Agriculture, Washington, D. C. Authors William J. Martin and Joe H. McLure have made the study to determine the specific quantities and qualities of raw cotton required for the major types of cotton textile products.

The report discloses that in actual manufacturing practice no sharp differentiation exists in regard to the average grade of cotton used in several fabrics studied. Except for denim and osnaburg, which used very low qualities, the average grade was in the Strict Low Middling to Middling range. Staple length varied to an appreciable extent.

The study also reveals that both grade and staple length vary to a considerable extent among the different mills making the same type of fabric. For instance, one narrow sheeting mill used cotton averaging about Low Middling, while another used cotton averaging Strict Middling. The average staple length used in the mill mixes in these sheeting mills varied from about ⅞-in. to 1 1/32-in. Explanation offered was the difference in manufacturing organization and in the quality of fabric required for each particular end use.

A Preview of the First

American Textile Machinery Exhibition

Atlantic City, N. J., May 8-12

SINCE the first announcement in the spring of 1948 that the American Textile Machinery Exhibition had been scheduled to be held in Atlantic City during the week of May 8-12, 1950, under the auspices of the National Association of Machinery Manufacturers, textile operating executives the world over have talked about it and planned for this occasion when they will have an opportunito see the most recent developments in the field of machinery, supplies, and auxiliary equipment for the manufacture and processing of yarns and fabrics.

"The Atlantic City Show," as the Exhibition is referred to by mill men, promises to be a most interesting one. It is the first in which manufacturers of yarn processing machinery have participated since the 15th Southern Textile Exposition in Greenville, S. C., in 1941.

Two hundred and twelve exhibitors will utilize the huge Atlantic City Auditorium to display their machinery, supplies and auxiliary equipment or provide comfortable chairs and booth space for their friends. Several concerns have already announced that they will show and demonstrate the newest machinery they have in production and that which has been developed but is not yet in production, as well as pilot models of the latest advances emerging from their research laboratories.

According to spokesmen for the sponsoring organization, it will be a $5,000,000 show, the displays of some of the larger concerns costing well over $100,000 each. Many of the exhibits will be in operation.

The Exhibition Committee is headed by Erwin N. Darrin, vice-president of Draper Corporation, Hopedale, Mass. Other members are: J. Hugh Bolton, president of Whitin Machine Works; Frederic W. Howe, Jr., vice-president of Crompton & Knowles Loom Works; J. Frank Lowell, vice-president of Saco-Lowell Shops; Winthrop S. Warren, sales manager of Universal Winding Co., W. H. Rometsch, Jr., secretary and treasurer of Fletcher Works, Inc.; R. G. Ross, sales manager of the textile division of Barber-Colman Co., and Edgar A. Terrell, president of the Terrell Co.

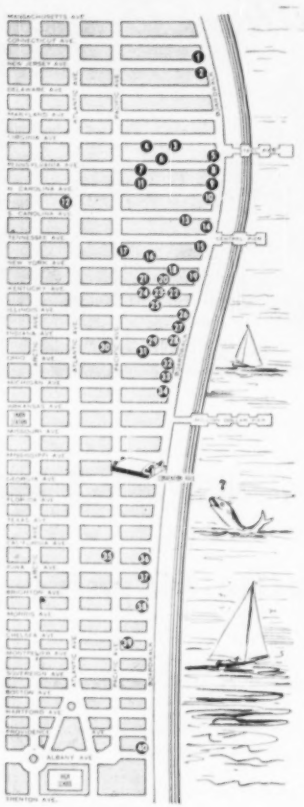
Housing. While Atlantic City is one of the largest seaside resorts in the world and possesses many fine hotels, facilities are frequently exhausted when exhibitions of the size and scope of the American Textile Machinery Exhibition are held. It is important that those who are planning to visit the Exhibition communicate promptly

Location of Hotels and Restaurants

Hotels

(Keyed to Map)

Map No.	Hotel
37	Ambassador
19	Apollo
21	Boscobel
1	Breakers
27	Brighton
9-10	Chalfonte-Haddon Hall
38	Chelsea
4	Clarendon
28	Claridge
7	Colton Manor
17	Columbus
29	Crillon
33	Dennis
30	Easthourne
16	Flanders
35	Fox Manor Hotel
6	Holmhurst
23	Jefferson
24	Kentucky
11	Lafayette
18	Lexington
25	Madison
32	Marlborough-Blenheim
15	Mayflower
20	Monticello
3	Morton
14	New Belmont
12	Penn-Atlantic
40	President
36	Ritz-Carlton
31	Runnymede
2	St. Charles
5	Seaside
13	Senator
34	Shelburne
22	Sterling
8	Strand
26	Traymore
39	Villa D'Este



Restaurants

Seafood Restaurants

Hackney's
215 Maine Ave.

Dock's Oyster House
2405 Atlantic Ave.

Lutz Inn (Knife and Fork)
Atlantic, Pacific and Albany

Neptune Inn
Pacific at Albany

Colonial House
Fox Manor Hotel

McGeo's Bar and Restaurant
1615 Pacific Ave.

2112 Bar and Restaurant
Atlantic Ave. at Arkansas

Capt. Starn's
Inlet end of trolley line.

Chinese Restaurants

New Canton
184 S. Virginia

Chinaland
28 S. Tennessee

Dragon's Den
2021 Boardwalk

Italian Restaurants

Dicanio
1013-15 Atlantic Ave.

Dion
Boardwalk at Florida

Rex
18 So. Tennessee

Jewish-American Cuisine

Shumsky's
Pacific at Georgia

Yankel's
3207 Pacific Ave.

American Restaurants

Jack Guischard's Steak House
2500 Atlantic Ave.

Stanley
1230 Atlantic Ave.

Kornblau's
927 Pacific Ave.

Vienna
1415 Boardwalk
1328 Atlantic
1410 Atlantic

Sid Hartfield's
1617 Boardwalk

Huyler's
1723 Boardwalk

Johnson Restaurant
2328 Atlantic Ave.

Kents
1214 Atlantic Ave.
2124 Atlantic Ave.
Pacific Ave. at Illinois

with the Housing Secretary, 16 Central Pier, Atlantic City, N. J., indicating the number of rooms desired. Room rates range upwards from $2.00 per day per person.

Locations of the majority of the hotels in the vicinity of the Auditorium are shown on the accompanying simplified map. Those seeking accommodations are requested to indicate several hotel choices in the order of their preference. Twin-bedded rooms should be utilized if possible since single rooms are limited in number. Applications should include dates of arrival and departure.

Transportation. Atlantic City is served by railroads and air lines. To be of assistance to those planning to attend the show, TEXTILE INDUSTRIES has obtained from the railroads and air lines schedules from major textile centers of the United States to Atlantic City and return. These schedules are published on pages 145 and 146.

It will be observed that there is no through-car rail service from any of the points listed; however, in some instances special cars can be arranged for parties of sufficient size by contacting passenger representatives of appropriate railroads. This same situation exists with the air lines.

The schedules published herewith are for guidance only and are subject to change. It is recommended that verification be made when planning trips.

Admission. Tickets for admission to the Exhibition are free to everyone in the textile industry. They may be had in any quantity desired by communicating with (1) Albert C. Rau, manager, Campbell-Fairbanks Expositions, 332 Park Square Building, Boston, Mass., (2) TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Ga., or any of the other exhibitors, or (3) upon registration at the Exhibition in Atlantic City.

Show Hours. The Exhibition officially opens at 10:00 A.M. on Monday, May 8, and closes at 6:00 P.M. on Friday, May 12. Hours are from 10:00 A.M. to 6:00 P.M. daily except on Wednesday

when the Auditorium will remain open until 10:00 P.M.

A listing of the exhibitors, their addresses, booth numbers, representatives to be in attendance, and products to be displayed is published in the accompanying section. Representative photographs of equipment to be shown are also included. This directory contains information furnished by the cooperating companies up to the closing date of this April issue. Absence of a description of the exhibit is no indication that the exhibitor will have only resting space.

There's Plenty to See and Do in Atlantic City

ATLANTIC CITY was selected as the site for the American Textile Machinery Exhibition because of its adequate hotel accommodations and exhibition hall facilities.

Hotels in this city on an island just off the coast of New Jersey, have been designed with emphasis placed on leisure and recreation. All of them feature spacious lobbies and lounges. Sun decks, too, are provided by the majority.

The world-famous Boardwalk, 60 feet wide and paralleling the beach and ocean for nearly the entire eight miles of the island's length, echoes an atmosphere of vacation. Providing the stroller with a maximum of sunshine by day, the 'walk is a veritable "Broadway by the Sea" at night with the combination of the lights from the electric signs and the illumination on the hotels

Attractive shops line the landward side of the boardwalk, providing markets where may be purchased a long list of things that appeal to the vacationist. Here also are the shops where the famous "salt water taffy" is made and sold.

Restaurants are numerous as is evident by glancing at the list on page 144 indicating the names

Train Schedules to Atlantic City and Return

Origin: Atlanta, Greenville and Charlotte

(Southern Railway System)

	The Crescent	The New Yorker	The Southerner
Lv. Atlanta	1:45 P.M.	7:00 P.M.	8:30 P.M.
Lv. Greenville	5:00 P.M.	10:15 P.M.	11:40 P.M.
Lv. Charlotte	7:30 P.M.	12:35 A.M.	1:42 A.M.
Ar. N. Philadelphia	7:25 A.M.	11:58 A.M.	11:58 A.M.
Lv. N. Philadelphia	9:10 A.M.	12:44 P.M.	12:44 P.M.
Ar. Atlantic City	10:35 A.M.	2:00 P.M.	2:00 P.M.

	The Crescent	Peach Queen	Southerner	Piedmont
Lv. Atlantic City	1:20 P.M.	6:00 P.M.	4:15 P.M.	9:55 P.M.
Ar. N. Philadelphia	2:46 P.M.	7:14 P.M.	5:38 P.M.	11:13 P.M.
Lv. N. Philadelphia	3:38 P.M.	8:25 P.M.	6:14 P.M.	11:33 P.M.
Ar. Charlotte	2:45 A.M.	9:10 A.M.	4:30 A.M.	12:10 P.M.
Ar. Greenville	5:10 A.M.	11:45 A.M.	6:45 A.M.	2:50 P.M.
Ar. Atlanta	8:30 A.M.	3:30 P.M.	10:10 A.M.	6:30 P.M.

Note: Schedules from Atlanta, Greenville, and Charlotte are routed Southern Railway to Washington, D. C., Pennsylvania Railroad to North Philadelphia, Pa., and Pennsylvania-Reading Seashore Lines to Atlantic City. There is no through car service from any of the points included in this table; however, in some instances special cars can be arranged for parties of sufficient size by contacting appropriate railroads.

Origin: Birmingham, Atlanta, Greenwood, Columbia, and Raleigh

(Seaboard Air Line Railroad Co.)

	Silver Comet	Silver Meteor	Palmland	Silver Star
Lv. Birmingham	2:00 P.M.			
Lv. Atlanta	7:10 P.M.			
Lv. Greenwood	10:26 P.M.			
Lv. Columbia	.....	8:45 P.M.	3:40 P.M.	4:05 P.M.
Lv. Raleigh	3:45 A.M.	12:30 A.M.	9:15 P.M.	8:10 A.M.
Ar. N. Philadelphia	12:04 P.M.*	9:01 A.M.	7:50 A.M.	4:34 P.M.
Lv. N. Philadelphia	12:44 P.M.*	9:10 A.M.	9:10 A.M.	4:54 P.M.
Ar. Atlantic City	2:00 P.M.	10:35 A.M.	10:35 A.M.	6:10 P.M.
Lv. Atlantic City	10:30 A.M.	1:20 P.M.	6:00 P.M.	8:35 A.M.
Ar. N. Philadelphia	11:50 A.M.	2:54 P.M.	7:14 P.M.	9:54 A.M.
Lv. N. Philadelphia	2:01 P.M.	4:20 P.M.	9:57 P.M.	11:34 A.M.
Ar. Raleigh	10:30 P.M.	12:35 A.M.	7:10 A.M.	7:45 P.M.
Ar. Columbia	.....	4:33 A.M.	12:50 P.M.	11:45 P.M.
Ar. Greenwood	4:08 A.M.			
Ar. Atlanta	7:20 A.M.			
Ar. Birmingham	10:45 A.M.			

*Saturday and Sunday only. Week days leave N. Philadelphia 1:36 P.M., arrive Atlantic City 3:07 P.M.

Note: Schedules from Birmingham, Atlanta, Greenwood, Columbia, and Raleigh routed Seaboard Railroad to Richmond, Richmond, Fredericksburg and Potomac to Washington, D. C., Pennsylvania Railroad to North Philadelphia, Pa., and Pennsylvania-Reading Seashore Lines to Atlantic City.

Origin: Boston, Mass.

(New York, New Haven & Hartford Railroad)

	NYNH&H 187	NYNH&H 175
Lv. Boston	12:05 A.M.	8:30 A.M.
Ar. N. Philadelphia	7:29 A.M.	2:54 P.M.
Lv. N. Philadelphia	9:10 A.M.	4:54 P.M.
Ar. Atlantic City	10:35 A.M.	6:10 P.M.
Lv. Atlantic City	9:55 P.M.	7:30 A.M.
Ar. N. Philadelphia	11:13 P.M.	8:45 A.M.
Lv. N. Philadelphia	12:44 A.M.	9:17 A.M.
Ar. Boston	7:45 A.M.	3:45 P.M.

Note: Schedules from Boston are routed New York, New Haven & Hartford Railroad to New York City, thence Pennsylvania Railroad to North Philadelphia, Pa., and Pennsylvania Reading Seashore Lines to Atlantic City.

Origin: Cincinnati, Ohio, and Chicago, Ill.

(Pennsylvania Railroad)

	ST. LOUISIAN	CINCINNATI LIMITED
Lv. Cincinnati	11:20 P.M.	5:15 P.M.
Ar. N. Philadelphia	2:36 P.M.	6:59 A.M.
Lv. N. Philadelphia	4:34 P.M.	9:10 A.M.
Ar. Atlantic City	6:10 P.M.	10:35 A.M.
Lv. Atlantic City	10:30 A.M.	4:15 P.M.
Ar. N. Philadelphia	11:50 A.M.	5:38 P.M.
Lv. N. Philadelphia	2:24 P.M.	6:56 P.M.
Ar. Cincinnati	7:20 A.M.	8:30 A.M.

	BROADWAY LIMITED	GOTHAM LIMITED
Lv. Chicago	4:30 P.M.	11:15 P.M.
Ar. N. Philadelphia	8:01 A.M.	4:00 P.M.
Lv. N. Philadelphia	9:10 A.M.	4:54 P.M.
Ar. Atlantic City	10:35 A.M.	6:10 P.M.

	BROADWAY LIMITED	PENNSYLVANIAN
Lv. Atlantic City	4:15 P.M.	6:00 P.M.
Ar. N. Philadelphia	5:38 P.M.	7:14 P.M.
Lv. N. Philadelphia	7:21 P.M.	8:11 P.M.
Ar. Chicago	9:00 A.M.	10:25 A.M.

Note: Schedules from Cincinnati and Chicago are routed Pennsylvania Railroad to North Philadelphia, Pa., thence Pennsylvania-Reading Seashore Lines to Atlantci City.

Air Line Schedules to Atlantic City and Return

(Eastern Air Lines Except as Noted*)

Atlanta to Atlantic City

Flight Number	590	534W	564	510
Lv. Atlanta	1:35 A.M.	2:35 A.M.	7:45 A.M.	12:20 P.M.
Ar. Washington	|	5:15 A.M.	12:13 P.M.	3:10 P.M.
Flight Number		**590**	**AAA 106**	**654**
Lv. Washington	|	6:45 A.M.	2:30 P.M.	5:10 P.M.
Ar. Atlantic City	8:29 A.M.	8:29 A.M.	3:59 P.M.	6:30 P.M.

Atlantic City to Atlanta

Flight Number	653	453	AAA103	AAA 105
Lv. Atlantic City	7:52 A.M.	10:22 A.M.	12:00 Noon	3:00 P.M.
Ar. Washington	8:51 A.M.	11:42 A.M.	1:33 P.M.	4:33 P.M.
Flight Number	**511**	**537**	**565**	**509**
Lv. Washington	10:50 A.M.	12:01 P.M.	2:15 P.M.	6:40 P.M.
Ar. Atlanta	1:22 P.M.	4:30 P.M.	7:22 P.M.	9:40 P.M.

Charlotte to Atlantic City

Flight Number	654	590	596	564
Lv. Charlotte	2:19 P.M.	3:32 A.M.	6:25 A.M.	9:20 A.M.
Ar. Washington	|	|	9:21 A.M.	12:13 P.M.
Flight Number			**AAA 100**	**AAA 106**
Lv. Washington	|	|	11:20 A.M.	2:30 P.M.
Ar. Atlantic City	6:30 P.M.	8:29 A.M.	12:49 P.M.	3:59 P.M.

Atlantic City to Charlotte

Flight Number	653	AAA 103	453	AAA 105
Lv. Atlantic City	7:52 A.M.	12:00 Noon	10:22 A.M.	3:00 P.M.
Ar. Washington	|	1:33 P.M.	11:42 A.M.	4:33 P.M.
Flight Number	|	**565**	**537**	**655**
Lv. Washington	|	2:15 P.M.	12:01 P.M.	5:15 P.M.
Ar. Charlotte	12:06 P.M.	5:14 P.M.	2:49 P.M.	8:09 P.M.

Greenville to Atlantic City

Flight Number	578	590
Lv. Greenville	12:35 P.M.	2:43 A.M.
Ar. Charlotte	1:16 P.M.	|
Flight Number	**654**	|
Lv. Charlotte	2:19 P.M.	|
Ar. Atlantic City	6:30 P.M.	8:29 A.M.

Atlantic City to Greenville

Flight Number	653	AAA 103	AAA 105
Lv. Atlantic City	7:52 A.M.	12:00 Noon	3:00 P.M.
Ar. Charlotte	12:06 P.M.	1:33 P.M.	4:33 P.M.
Flight Number	**553**	**565**	**567**
Lv. Charlotte	12:50 P.M.	2:15 P.M.	5:10 P.M.
Ar. Greenville	1:44 P.M.	6:09 P.M.	9:34 P.M.

Boston to Atlantic City

Flight Number	453	557	565
Lv. Boston	7:20 A.M.	7:55 A.M.	9:35 A.M.
Ar. Philadelphia	|	10:39 A.M.	12:32 P.M.
Flight Number	|	**AAA 300**	**AAA 302**
Lv. Philadelphia	|	10:45 A.M.	1:25 P.M.
Ar. Atlantic City and	10:15 A.M.	11:09 A.M.	1:49 P.M.
Flight Number	**655**		
Lv. Boston	1:25 P.M.		
Ar. Newark	2:50 P.M.		
Flight Number	**477**		
Lv. Newark	3:25 P.M.		
Ar. Atlantic City	4:11 P.M.		

Atlantic City to Boston

Flight Number	590	AAA 103	AAA 305	654
Lv. Atlantic City	8:15 A.M.	1:00 P.M.	4:10 P.M.	6:40 P.M.
Ar. Philadelphia	|	1:26 P.M.	4:56 P.M.	|
Flight Number	|	**478**	**AAL 324**	|
Lv. Philadelphia	|	2:45 P.M.	5:06 P.M.	|
Ar. Boston	11:35 A.M.	5:05 P.M.	6:32 P.M.	9:15 P.M.

Chicago to Atlantic City

Flight Number	UAL 610	UAL 134	CAP 900
Lv. Chicago	8:15 A.M.	9:30 A.M.	12:00 Noon
Ar. Philadelphia	12:45 P.M.	1:40 P.M.	4:34 P.M.
Flight Number	**AAA 302**	**AAA 106**	**654**
Lv. Philadelphia	1:25 P.M.	2:30 P.M.	5:10 P.M.
Ar. Atlantic City	1:49 P.M.	3:59 P.M.	6:30 P.M.

Atlantic City to Chicago

Flight Number	455	AAA 105
Lv. Atlantic City	10:22 A.M.	3:00 P.M.
Ar. Washington	11:42 A.M.	4:33 P.M.
Flight Number	**UAL 607**	**UAL 511**
Lv. Washington	12:30 P.M.	6:00 P.M.
Ar. Chicago and	2:30 P.M.	8:50 P.M.
Flight Number	**AAA 305**	
Lv. Atlantic City	4:30 P.M.	
Ar. Philadelphia	4:56 P.M.	
Flight Number	**UAL 619**	
Lv. Philadelphia	5:30 P.M.	
Ar. Chicago	8:35 P.M.	

Cincinnati to Atlantic City

Flight Number	AAA 302	AAL 560 (Except Sun.)	AAL 562
Lv. Cincinnati	8:00 A.M.	8:45 A.M.	11:36 A.M.
Ar. Washington	|	11:10 A.M.	2:54 P.M.
Flight Number	|	**AAA 100**	**654**
Lv. Washington	|	11:20 A.M.	5:10 P.M.
Ar. Atlantic City	1:49 P.M.	12:49 P.M.	6:30 P.M.

Atlantic City to Cincinnati

Flight Number	AAA 303	453	653	AAA 105
Lv. Atlantic City	1:00 P.M.	10:22 A.M.	7:52 A.M.	3:00 P.M.
Ar. Washington	|	11:42 A.M.	8:51 A.M.	4:33 P.M.
Flight Number	|	**AAL 571**	**AAL 569**	**AAL 467**
Lv. Washington	|	12:52 P.M.	9:02 A.M.	6:02 P.M.
Ar. Cincinnati	7:03 P.M.	3:06 P.M.	11:41 A.M.	8:41 P.M.

*Note: AAA is All American Airways; AAL is American Airlines; CAP is Capital Airlines; UAL is United Airlines; and those flights not designed are Eastern Air Lines flights.

and addresses of those in the vicinity of the Auditorium, as well as the type of foods they feature.

About midway down the boardwalk is the Atlantic City Auditorium and Convention Hall, the world's largest, which was built in 1929 at a cost of about $15,000,000. It is here that the American Textile Machinery Exhibition will be held.

Four golf clubs surround the resort, and all are active throughout the year. Other outdoor sports available to visitors include: bicycling, crabbing, deep sea and tuna fishing, horseback riding, miniature golf, rolling chair rides, sightseeing by bus and boat, sailing, tennis, and trapshooting.

Yes, there is plenty to do in Atlantic City! No doubt many textile executives will combine a business opportunity with a pleasant vacation.

"There Was a Guy Named Jake!"

"There was a guy named Jake!"

That trite line is an all-inclusive story of how a man's idea grew into a $2,500,000 project that is known the world over.

Because of Jake everything is "jake" in Atlantic City, New Jersey, where the world's largest wooden sidewalk was started in 1870. The man with the idea was Jake Keim and if it wasn't for him, folks say bathers in the resort would be swimming over the curbs and fire hydrants on Atlantic Avenue and the hotels along the Boardwalk would be standing in 60 feet of water.

Jake, they say, really started the new Atlantic City because he invited the collapsible boardwalk.

Back in the '60s and '70s, Jake ran a small hotel in the lighthouse section of Atlantic City (population 1500) and he had a problem. The sand dunes on the beach had just been cleared away, and tides swept across the marshlands in front of Jake's front porch, with the result that guests were likely to get mired up to their necks before they had a chance to take a swim—or, much worse, pay their bill.

Jake brooded over that and his

THE ATLANTIC CITY AUDITORIUM, scene of the first American Textile Machinery Exhibition. It covers seven acres of ground. The exhibition hall is so large that football and polo can be played in it. It is said that even Babe Ruth could not bat a ball its length. Located about midway the Boardwalk, between Mississippi and Georgia Avenues, the huge structure has been host to hundreds of thousands of persons since its opening.

brooding gave Atlantic City its first boardwalk.

That boardwalk astounded the world on June 26, 1870. It cost $5000 (put up by the city council), and it was a full mile long and eight feet wide. Four people could walk abreast. And where it crossed mud puddles it was elevated on stakes a foot high.

The oft-repeated expression about "rolling up the sidewalks at night" also was probably born in Atlantic City, because Jake's boardwalk was built in eight-foot sections and when fall rolled around the city fathers unhooked their precious planks and piled them in a nearby barn. This explains an item to be found in every Atlantic City budget from 1870 to 1879: "To rent of barn for storing Boardwalk, $17."

That started things humming. Twenty-five years, and half a dozen Boardwalks later, Atlantic City was in full swing.

Despite the success of the 'Walks, the city fathers experienced real trouble when hotel operators and real estate men began to build up the beachfront—periodically moving the shoreline out several hundred feet. They forced the ocean water to retreat by construction of jetties that caught the sand and gradually built up a new shoreline.

The patient city fathers followed each new move with their collapsible boardwalk in tow.

Building of jetties to create a beach was the discovery of one Dr. Walter S. Dick, a Navy surgeon of the Civil War. The doctor had property in the Inlet section and for two years he hired boys to row him out a short distance where he would study eddies. He had the idea that eddies built up the beach.

The doctor's first jetty consisted of huge boxes of sand dropped into the water. Soon the water line receded and he experienced a real estate boom, selling lots in the reclaimed area. Mary A. "Mommy" Wootton was another who helped build up the beach. She used a sea fence made of pilings filled with Christmas trees and soon had the sea retreating at the rate of 100 feet a year.

With improved business and an ever-increasing beach area, the city fathers decided to call a halt—they were tired of chasing the beach with their button-on boardwalk. And as a result legislation was passed that restricted activity on the seaward side of the promenade.

The 1896 version of the Boardwalk saw erection of bridges at street ends. Those were horse-and-buggy days and the Boardwalk of that year was built for them.

Gradually the bridges disappeared and the boardwalk began to take its present shape and dimensions. By virtue of constant building and year-round care, the button-on model of 1870 has grown into a promenade nearly eight miles long and 60 feet wide.

And as one gazes out to sea from this wooden walk, it is hard to believe that only 70 years ago this resort was a town of but 1500 population and literally "took up the sidewalk" at the end of the bathing season.

Please turn the page *for a listing of exhibitors, their representatives, and products to be displayed at the Atlantic City Show.*

A FAMILIAR SIGHT to those who have visited Atlantic City is this view of the world-famous Boardwalk with hundreds of vacationists strolling along or riding in the popular two-seated wicker chairs on wheels powered by a one-man pusher.

Guide to Exhibitors, their Representatives, and Products

The Atlantic City Show, May 8-12

ABBOTT MACHINE COMPANY
Wilton, N. H. **485-502**
L. S. Ligon, Sou. Mgr.
S. A. Roane, Sales Eng.
Exhibiting: An automatic traveling spindle winder; also, automatic traveling spindle quiller and pinboard attachment.

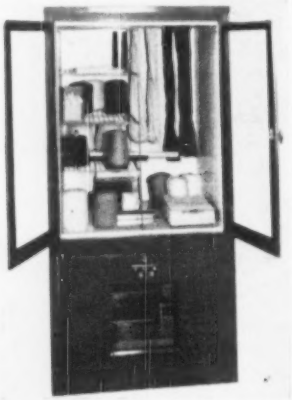
ABINGTON TEXTILE MACHINERY WORKS
Boston, Mass. **200-205**

ACROMETAL PRODUCTS, INC.
Minneapolis, Minn. **350**

AETNA FELT COMPANY, INC.
New York, N. Y. **808-809**
W. P. Musselman, Pres.
D. M. Vlaun, Sales Mgr.
Thomas Shea
W. Williams
H. C. Outcault
Exhibiting: Specialized cloths and felts for the textile industry. A complete line of decating cloths will be of special interest to finishers.

AIR-PERME-ATOR MFG. CO.
Paterson, N. J. **86-87**
Exhibiting: Model B-5 "Dry Humidification" system for complete air control featuring automatic drainage, automatic flushing and automatic air intake. Will show how this unit may be combined with heating and cooling for year 'round temperature control. In addition to this, cabinets that may be used for the storage, conditioning and processing of yarns and cloth will be on display; they will be equipped with complete humidity and temperature controls. Also, a working model for demonstrating the actual operation of the Air-Perme-Ator units.

Conditioning cabinet for yarns and cloth (Air-Perme-Ator).



ALLEN COMPANY
New Bedford, Mass. **244-247**
Lewis C. Briggs III, Gen. Mgr.
James E. Oliver, Sales Mgr.
Joseph Bowler, Jr., Sales
Carlton E. Oliver, Sales
Warren C. Johnson, Sales
Exhibiting: Wooden beam heads, warper beams, warping machinery for all kinds of fibers, and loom beam barrels.

ALLEN-BRADLEY COMPANY
Milwaukee, Wis. **27-28**

THE ALLENTOWN BOBBIN WORKS, INC.
Allentown, Pa. **719**
Henry W. Mack, Vice-Pres.
Harold S. Barnes, Secy-Treas.
Exhibiting: Bobbins and spools for the processing of fine denier yarns, such as silk, rayon, nylon, and combination yarns.

LOUIS ALLIS COMPANY
Milwaukee, Wis. **22-23**
Maurie Weitekamp, Sales Eng.
Ralph Owen, Chief Application Eng.
Bill Canfield, Sales Eng.
Exhibiting: A new ball bearing loom motor featuring a special stator and rotor design which provides medium to high slip; by this means power peaks are greatly reduced and regeneration is minimized. Also, the Adjusto-Spede drive will be shown.

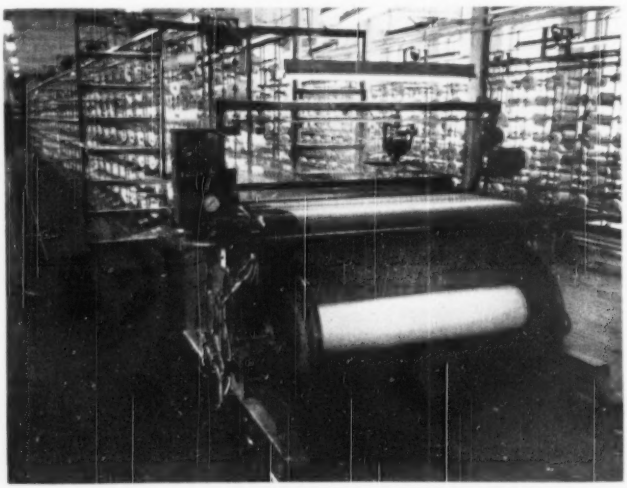
ALLIS-CHALMERS MANUFACTURING COMPANY
Milwaukee, Wis. **127AA-127BB**
H. A. Wilson
H. A. Wright

Allis-Chalmers (continued)

Alex Schlueter
D. S. Kerr
C. F. O'Riordan
W. F. Taylor
W. N. Ober
William Parker
A. I. Richardson
G. H. Hoffman
J. J. Greagan
R. H. Black
F. J. Geiger
Exhibiting: A redesigned Quick-Clean motor with seal-clad construction and large area air passages to prevent lint accumulation. In addition, the Vari-Pitch automatic sheave, which in combination with a companion sheave, wide range Texrope belts and Texslide motor base, provides an efficient form of speed control, will be shown on various spinning frames. A totally enclosed loom motor and various motor controls will also be on display.

ALUMINUM COMPANY OF AMERICA
Pittsburgh, Pa. **1-3**
H. H. Nuernberger, Head, Ind. Machinery Section
Exhibiting: New developments in aluminum and magnesium textile equipment, including the Draper extruded lay beam, a cast aluminum torque converter for use on cards and other heavy starting machinery, and aluminum bobbins. Samples of castings, forgings, tubing and sheet as applied to the textile industry will be on display.

High speed warper and creel (Allen Co.).



AMERICAN DYESTUFF REPORTER
New York, N. Y. 711

AMERICAN LAVA CORPORATION
Chattanooga, Tenn. 21
G. E. Richter, Vice-Pres.
J. B. Shacklett, Sales Rep.
Exhibiting: Thread guides for textile machinery made of: Alsimag 192, a regular wear resistant material; Alsimag 193, a conductive type material; Alsimag 194, a superhard, long wearing material.

AMERICAN MOISTENING COMPANY
Providence, R. I. 115-117
H. B. Bradford, Manager
N. B. Chase
H. R. Rich
M. H. Irons
L. Blau
W. Everett
M. McCall
J. E. Boston
B. A. West
W. P. Woodcock
J. D. Johnson
W. L. Johnson
J. H. Waldrip
W. A. Mullins
Exhibiting: Humidification and evaporative cooling systems, atomizers, humidity controls, and humidification devices.

AMERICAN PAPER TUBE CO.
Woonsocket, R. I. 256-257
Harald L. Amrhein, Pres.
Edmond H. Guerin, Jr., Vice-Pres.
Robert J. Guerin, Vice-Pres.
Frederic L. Chase, Jr., Rep.
Dannitte M. Beattie, Rep.
Samuel F. Adams, Rep.
George M. Sanford, Jr., Rep.
Exhibiting: A representative group of their wide variety of yarn carriers. Featured will be the new "Plasti-Weld" warp bobbins and automatic loom bobbins which are made by a special patented plastic molding process that "welds" paper, metal and plastic into a single unit, utilizing the properties of each material to maximum advantage. According to the manufacturer, precision alignment of seat and barrel is assured.

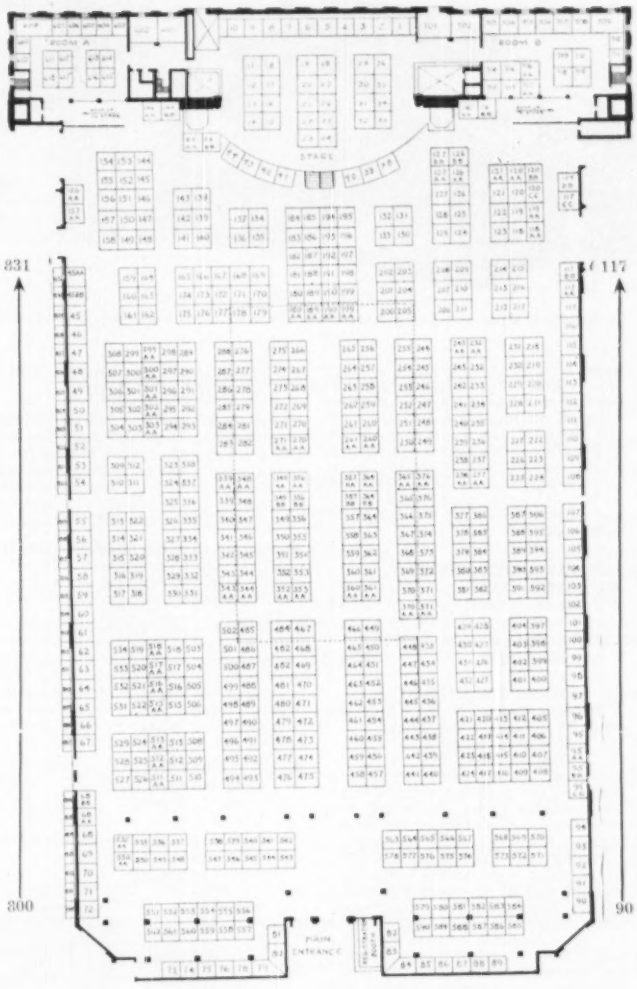
AMERICAN TEXTILE ENGINEERING, INC.
Arlington, N. J. 603-604
W. O. Schlimbach, Mgr.
C. F. Egues, Sales
Exhibiting: Oxy equipment for elimination of static electricity; Autodinamografo for automatically measuring elongation and breaking strength of yarns; electrical singeing equipment for yarns and piece goods.

AMERICAN WOOL & COTTON REPORTER
Boston, Mass. 270-270A

ASHWORTH BROTHERS, INC.
Fall River, Mass. 108-110
R. C. Ashworth, Jr., Pres.
George R. Ashworth, Treas.
George A. Davis, Mgr. Wool and Worsted Div.
John Reed, Sou. Mgr.
William J. Flynn, Jr., Sales
Charles Lalime, Sales
Wilbrod Merchant, Sales
Frank Armitage, Sales
Gene Johnston, Mgr. Greenville Plant
Thurman Hart, Sales

Floor Plan of the Exhibition Hall

It will be helpful in the location of supplier friends.

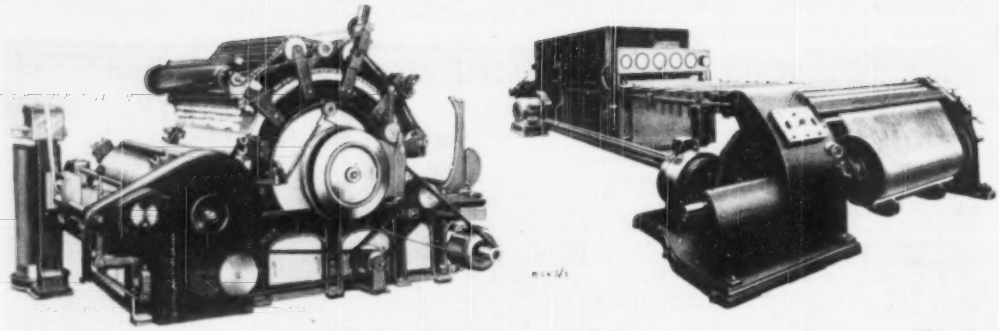


Ashworth Bros. (continued)

Exhibiting: Samples of card clothing for the carding of cotton, woolen, worsted, asbestos, and synthetic fibers; napper clothing; several sample rolls covered with metallic wire for the carding of cotton, worsted, and synthetic fibers; samples of the various types of metallic wire used for covering metallic breasts and feed rolls. Also, samples of woven wire conveyor belts manufactured by firm's Metal Products Division will be on display.

ATELIERS ROANNAIS DE CONSTRUCTIONS TEXTILES
Loire, France 100-102

ATKINSON, HASERICK & CO.
Boston, Mass. 702, 703
J. L. Coon, Pres.
H. V. Farnsworth
W. P. Rutley, Holdsworth Gill Screw Co., Inc.
George Bliss
F. E. Bozeman
Karl Muhlinghause
Charles Goetz
Exhibiting: English textile machinery. Featured will be: Hibbert moist air drying and sizing machine (A.12 Model); Platt Bros'. M. U. 1. light package uptwister and revolving flats card; Tweedales & Smalley's ring doubling frame; and Holdsworth Gill Screw Co's. gill reducer which is especially developed for the draw-



Left, Platt Bros. revolving flats card; right, Hibbert moist air drying and sizing machine (Atkinson & Haserick).

ing section for regular or abbreviated systems of spinning worsted yarns. Platt Bros. (Sales) Ltd. will also have on display the M.S.2 High Draft Speed Frame featuring production increases up to 15%, fiber control, 75% reduction in waste, improved roving strength and uniformity, wide range of drafts, etc.

BACHMANN UXBRIDGE WORSTED CORP.
Uxbridge, Mass. 19

W. H. BAGSHAW COMPANY
Lowell, Mass. 80-81

THE BAHNSON COMPANY
Winston-Salem, N. C. 11-18
F. S. Frambach, Sales Eng.
R. T. Hodgdon, Sales Eng.
H. J. Haslam, Sales Eng.

Exhibiting: Operating model of the Bahnson air washer demonstrating the Flexidur spray nozzle and the recently developed Type DC spray nozzle that is said to reduce pumping cost approximately 50% in certain applications. Also on display will be an operating model of the Humiduct air conditioning unit suspended from the ceiling of a miniature cotton spinning room. The Type ESC self-cleaning pneumatic atomizer will be demonstrated in operation over the Type D removable core grille which provides an access door to the air distribution duct. Centrifugal humidifiers and a display model of a Worthington centrifugal refrigeration compressor will also be shown.

BARBER-COLMAN COMPANY
Rockford, Ill.
Textile Machinery Div. 377-396
R. G. Ross, Sales Mgr.
L. L. Lideen, Sales Eng.
H. G. Hoffman, Sales Eng.
Wm. Bauer, Jr., Sales Eng.
F. D. Taylor, Br. Mgr.
James Savage, Installation Supt.
W. P. Turner, Sales Eng.
K. C. Morrison, Sales Eng.
H. C. Schleicher, Installation Supt.
J. H. Spencer, Br. Mgr.
N. H. Alford, Asst. Mgr.
S. R. McElroy, Installation Supt.
E. W. Rogers, Installation Supt.

Barber-Colman (continued)
J. C. Ballard, Sales Eng.

Exhibiting: Barber-Colman system of spooling and warping; portable warp tying machine for tying cotton, wool, worsted, and synthetic yarns, including monofilament; drawing-in machine for use on steel heddles; automatic quiller.

Automatic Control Division 105-107
H. H. Keickhefer, Sales Eng.
D. L. Hall, Sales Eng.
R. D. Richards, Sales Eng.

Exhibiting: Moisture content control for slashers; Temchron automatic electronic size cooking control; Temchron automatic electric level control for size box and size storage; temperature control and air distribution products for air conditioning and process work.

BIJUR LUBRICATING CORP.
Long Island City, N. Y. 263
Warren O. Wright

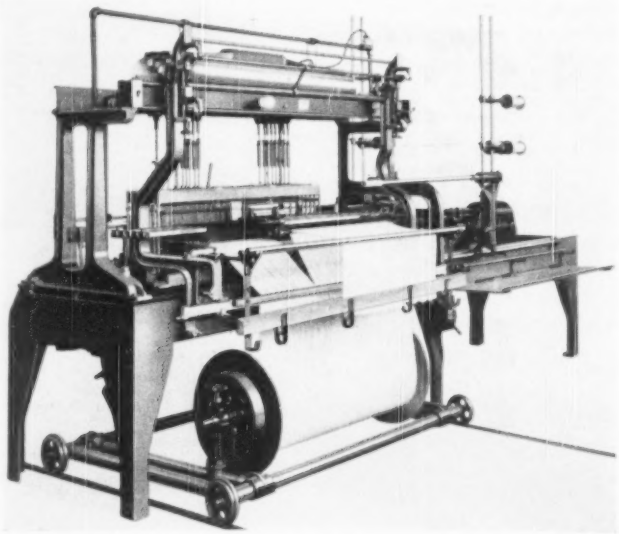
Bijur (continued)
Jackson L. Parker
Clyde M. Lassiter
Harrell J. Auten

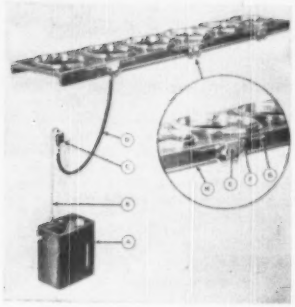
Exhibiting: Central lubrication systems for textile machines including equipment for automatic and one-shot lubrication of pickers, combers, roving frames, twisters, spinning frames, spoolers, winders, dryers, looms, gill boxes and sewing machines. Central feature of the exhibit will be a loom fully equipped with a one-shot lubrication system. On display for the first time will be a system for automatic lubrication of spinning rings.

BIRCH BROTHERS, INC.
Somerville, Mass. 397-399
Harold W. Birch, Manager
John C. Cosby
Clifford W. Birch, Jr.
Richard Briggs

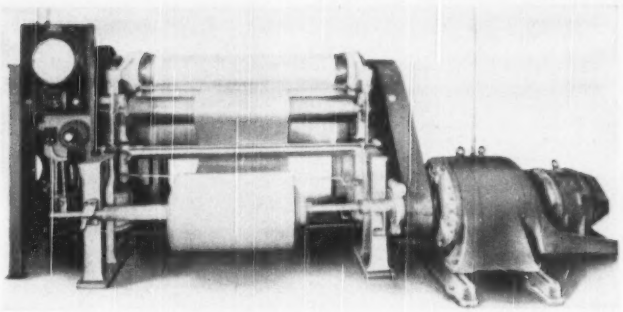
Exhibiting: A heavy duty ball bear-

Drawing-in machine for use on steel heddles (Barber-Colman).





System for automatic lubrication of spinning rings (Bijur).



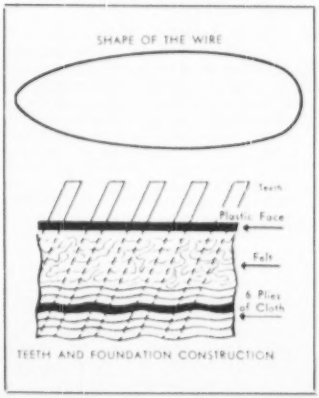
Two-roll embossing calender (Butterworth).

ing scutcher, adjustable slot vacuum extracting box, two-roll padder, traverse plaiter for handling cloth in rope form, stainless steel adjustable spiral opening roll unit, conical opener or spreader, angular guide, rubber expander rolls, high speed tacking machine head, butt-seam grey room sewing machine, chain stitch sewing machine, "Excel" sewing machine head, universal yarn assorting balance.

WILLIAM BIRCH, LTD.
Manchester, England 612
(See Trumeter Co.)

BENJAMIN BOOTH COMPANY
Philadelphia, Pa. 347-348
Norman E. Aderhold, Rep.
J. W. Scott, Rep.
Robert Todd, Supt.
Ralph R. Bause, Gen. Mgr.
E. A. Snape, Jr., Pres. & Treas.
Exhibiting: Strip-O-Matic card clothing featuring a special wire shape, a plastic-faced foundation, and wire angle and height that are said to result in a reduction in the amount of stripping required. A card setting machine will be in operation producing this new type of card clothing.

Details of construction of Strip-O-Matic card clothing (Booth).



THE BRUSH DEVELOPMENT CO.
Cleveland, Ohio 718

BUENSOD-STACEY, INC.
New York, N. Y. 29-30; 35-36
A. C. Buensod, Pres.
J. M. Sperzel, Eng.
O. T. Merwin, Eng.
M. L. Eakes, Eng.
R. O. McGary, Vice-Pres.
J. C. Rose, Eng.
R. M. Warren, Jr., Eng.
J. R. Clark, Eng.
Mrs. Audrey H. Cross, Asst. Secy.
Exhibiting: A complete humidifying system consisting of a central station type of air washer with air distribution of the horizontal low level diffusion type. Entire system will be in operation and will be supplemented with atomizing sprays under the control of an adjustable intermittent humidity controller. Of particular interest will be a rotary strainer which is attached and integral to the water spray system in the humidifier, for taking out the lint as collected in the washer. Another new feature is the Auto-Airmat lint filter for filtering all of the air passing through the central station system. A portable electric humidity and temperature indicator will also be on display.

THE BUNTING BRASS & BRONZE COMPANY
Toledo, Ohio 69-70
G. H. Adams, Pres.
R. R. Hirsch, Vice-Pres.
B. H. Wigle, Sales Mgr.
B. Van Steenburgh, Asst. Sales Mgr.
P. E. Holt, Asst. Prod. Eng.
W. J. McTighe, Sales Eng.
F. F. Bartlett, Sales Eng.
W. C. Bracken, Sales Eng.
Exhibiting: An assortment of bearings made for certain textile machinery manufacturers. Also a recently developed bearing bronze alloy, designated Bunting No. 183, which is considered resistant to corrosion.

BURLINGTON ENGINEERING COMPANY, INC.
Graham, N. C. 9-10
J. S. Williamson, Pres.
J. A. Okey, Vice-Pres.
Exhibiting: A twin 36-inch stainless steel dye beck, a 100-lb stainless steel package dyeing machine, and a 50-lb rotary dye machine.

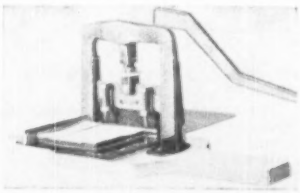
H. W. BUTTERWORTH & SONS COMPANY
Philadelphia, Pa. 538-547
Ebert Butterworth, Vice-Pres.
DeHaven Butterworth, Vice-Pres.
J. Hill Zahn, Rep.
Gene Hunter, Rep.
Edward S. Pierce, Rep.
Fred Spoerl, Rep.
Wallace Taylor, Rep.
Stanley Brooks, Rep.
Exhibiting: "Ripple Flo" overfeed pin tenter consisting of two-section pin tenter and new overfeed unit with photoelectric rail guiders; two-section compartment washer; two-roll embossing calender; and the "Bullet" padder.

A. B. CARTER, INC.
Gastonia, N. C. 38
E. L. Ramsey
C. E. Herrick
W. L. Rankin
E. H. Gregg
Exhibiting: The Boyce weaver's knotter and Carter spinning and twister travelers.

CENTURY ELECTRIC COMPANY
St. Louis, Mo. 617
Exhibiting: A new line of general purpose textile motors for use where there is an unusual amount of lint.

CHANDLER MACHINE COMPANY
Ayer, Mass. 20
R. C. Maxant, Secretary
August Reiner, Dist. Sales Mgr.
Exhibiting: An automatic side-box and combination pleater, the Class 548 power button sewing machine, and a sample-swatch cutting machine.

Sample-swatch cutting machine (Chandler).



CHAPMAN ELECTRIC NEUTRALIZER COMPANY
Portland, Maine 712

R. C. Payson, Pres.
Frank E. Hanscom, Field Eng.
D. H. Speidel, Midwest Rep.

Exhibiting: Components of Chapman electric neutralizers for cards, garnetts, drawing frames, etc.; the Model LV low voltage individual type static eliminator for such textile installations as slashers and warpers. A machine will be available for demonstrating the effectiveness of these electric neutralizers.

THE CLEVELAND GRAPHITE BRONZE COMPANY
New York, N. Y. 364

Exhibiting: The Silentbloc unit which, when incorporated as an integral part of a bobbin or spindle, or as a spindle bushing, effectively isolates and/or controls vibration, with the result that operating efficiency is increased. It consists of rubber or synthetic materials distended between an outer and inner metal sleeve. Adhesion between the rubber and metal is mechanically created through the pressure of deformation of the rubber rather than through chemical bonding. The Harris Products Co. of Cleveland, Ohio, licensee of Silentbloc, Ltd. of London, is a subsidiary of Cleveland Graphite Bronze Co. and will market the units in this country.

CLINTON FOODS, INC.
Clinton, Iowa 54

Al Junge, Mgr. Bulk Starch
R. E. Mickelsen, Asst. Mgr.

Exhibiting: Samples of starch.

COCKER MACHINE & FOUNDRY COMPANY
Gastonia, N. C.
535-537, 548-550, 535AA, 550AA

CONTAINER CORPORATION OF AMERICA
Philadelphia, Pa. 557-558

Mrs. Rita G. Macintosh, Consultant
Magnus Gaukerud, Sales Research
Barbara Keltz, Stylist

Exhibiting: Various folding cartons developed for the textile industry.

CONTINENTAL-DIAMOND FIBRE CO.
Newark, Del. 271AA

H. M. Dexter, Sales Mgr.
T. R. Silk, Asst. Sales Mgr.
C. L. Simmons, Jr., Dist. Mgr.
F. L. Cooper, Sales

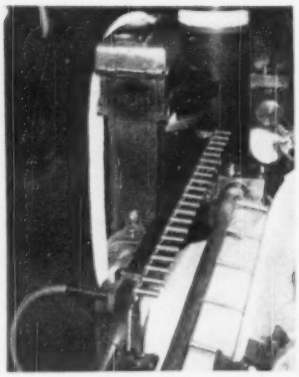
Exhibiting: Literature describing receptacles built of Diamond Vulcanized Fibre for transporting materials in process from one department to another.

COOK-P & N MACHINE COMPANY, INC.
Boston, Mass. 606-608

WILLIAM CRABB & COMPANY
Newark, N. J. 339AA

CROMPTON & KNOWLES LOOM WORKS
Worcester, Mass. 323-338

Herman Howe
Irving Molloy
Palmer Phelps
Verry Wing



Electric static neutralizer on cotton or rayon card (Chapman).

Crompton & Knowles (continued)

Exhibiting: Five broad looms, one multiple shuttle narrow fabric loom, a needle loom for narrow woven fabrics, and their latest Jacquard. According to the manufacturer, the most novel of the machines to be exhibited is the new needle loom weaving two 7/16" zipper tapes in a herringbone pattern at the rate of 1700 sheds per minute. The narrow fabric loom is of entirely new design, incorporating a new type of frame, a drive which eliminates a clutch and slipping mechanism, an electrical brake, a light metal lay, etc.; it will be shown weaving 48 carpet binding tapes 1½" wide at 230 picks per minute. The W-3 loom to be shown will be a 26-harness, 4x1 box automatic bobbin-changing convertible worsted type; it will have new features to be shown for the first time. The S-6 loom will be displayed weaving a filament rayon crepe. The four-shuttle S-4 shuttle-changing loom to be shown is constructed on an entirely new frame and incorporates basic improvements in the shuttle changing mechanism; it will be weaving a plaid rayon taffeta. A C-4 automatic bobbin-changing tri-color upholstery loom of dobby construction has several mechanical improvements; in addition to the tricolor motion which allows automatic weaving of single picks in sequence from three shuttles, this loom will have a V-belt drive and a special clutch; it will be weaving a complicated matelasse. Weaving a fabric of spun and filament rayon for apparel use will be a C-5 automatic bobbin-changing dobby incorporating a new type of vacuum filling control and thread cutter. A 2608-hook Jacquard head of double cylinder, double lift construction will also be on display.

The Silentbloc unit for vibration control (Cleveland Graphite).

CURTIS & MARBLE MACHINE COMPANY
Worcester, Mass. 134-137

Ralph Marble, Gen. Supt.
L. F. Remington, Chief Eng.
Walter E. Woodward, Sou. Rep.
Robert E. Steere, New England Rep.

Exhibiting: The S2A Unispeed Inspector for use in the inspection of rayon fabrics; power is applied to the arbor in the center of the goods and a constant speed is assured. Also on display will be the CMR Shearing Machine featuring a pneumatic timer.

CUTLER-HAMMER, INC.
Milwaukee, Wis. 126AA-126BB

P. S. Jones, Vice-Pres.
F. A. Wright, Asst. Gen. Sales Mgr.
M. R. Brice, Textile Ind. Spec.
L. P. Niessen, Adv. Mgr.
J. E. Jones, Eng. Supv.
J. P. Simon, Dist. Sales Mgr.
C. V. Topliffe, Dist. Sales Mgr.
G. E. Hunt, Dist. Sales Mgr.
W. E. Addicks, Dist. Sales Mgr.
J. A. Anderson, Application Eng.
F. A. Miller, Application Eng.
C. J. Nesser, Branch Sales Mgr.
A. T. Calvert, Application Eng.
A. E. Bahrt, Application Eng.
F. L. Sheram, Application Eng.
W. M. Reese, Branch Sales Mgr.

Exhibiting: Standard motor control for general purpose application on a wide variety of textile machines, safety switches, accessory equipment, and various custom-built control devices for specific textile requirements such as a loom switch, magnetic starter for individual card drives, automatic starter for roving and spinning frames.

DAVIS & FURBER MACHINE COMPANY
North Andover, Mass.
463-464, 467-484

Exhibiting: A new three-cylinder set of woolen cards, 60 inches in diameter and 72 inches wide, complete with a four-bank double apron tape condenser, Bramwell feed, and intermediate center draw feed; a 144-spindle, 6½" gauge, Simplex Model F large package wool spinning frame; the Model 60 electro-pneumatic warp spooler with magazine creel. These machines will all be in operation. A card setting machine will be producing card clothing. A small sample card will be in running order. As a matter of historical interest, the original Schofield card, which was the first woolen card to be operated in America, will be on display.

DAVISON PUBLISHING CO.
Ridgewood, N. J. 368-369

THE DAYTON RUBBER COMPANY
Dayton, Ohio 4-5

DIEHL MANUFACTURING CO.
Somerville, N. J. 259-260-260AA
W. O. Langille, Vice-Pres.
C. F. Bruder, Vice-Pres.
W. J. Jockers, Sales Mgr.
H. B. Thorpe, Textile Rep.
R. D. Ingalls, Chief Eng.
A. R. Booth, Dist. Mgr.
J. S. Wood, Dist. Mgr.
H. W. Kloth, Adv. Mgr.
Exhibiting: Electric motors for textile machinery applications: special purpose; standard open (dripproof); and splashproof and totally enclosed (fan cooled and not fan cooled) motors including dust and vapor explosion proof designs. Also, creel fans and exhaust and ventilating fans.

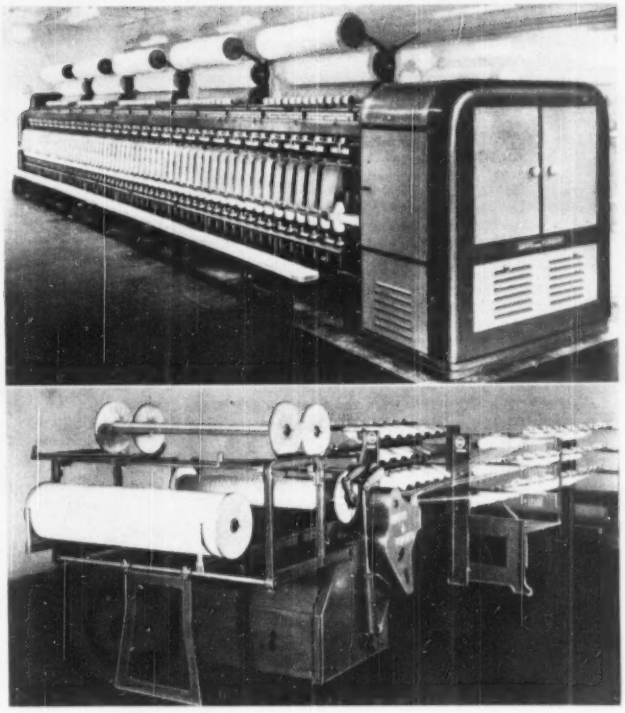
DIXON LUBRICATING SADDLE COMPANY
Bristol, R. I. 258
Robert R. Miller, Vice-Pres.
William R. Potter, Sales Mgr.
R. E. L. Holt, Jr., Agent
J. W. Davis, Agent
Exhibiting: A section of one of the drafting elements from each of three spinning frame manufacturers, illustrating how Dixon saddles, cap bars, and their component parts are incorporated. Of particular interest will be the new "Slixonice" back saddle to be used in conjunction with a Lubronze front saddle for long draft spinning. Special saddles produced for individual and unusual requirements will also be shown.

DRAPER CORPORATION
Hopedale, Mass
232-243, 237AA, 238AA, 232AA, 243AA
Exhibiting: Six of the latest type looms in actual operation, showing several outstanding new developments that will cut costs and improve quality. Included will be the X-2 loom with an overhead beam 32 inches in diameter. A new spinning frame builder motion will also be shown. In addition, a complete display of improved repair parts.

E. I. DU PONT DE NEMOURS & COMPANY, INC.
Wilmington, Del. 227

DURANT MANUFACTURING CO.
Milwaukee, Wis. 261, 261AA
Robert B. Winkler, Sales Mgr.
Leo A. Nourie, Eastern Mgr.
Wm. H. Bur, Rep.
J. K. Baker, Rep.
J. K. McGinley, Rep.
H. M. Reedy, Rep.
Exhibiting: Productimeter counting and measuring machines for application on textile machinery: "PVR" rotary printing counter, loom pick printing counter, "PSR-2" electric printing counter, friction drive lineal tachometer, and "CS" top reading rotary and stroke counters.

EDDA INTERNATIONAL CORP.
New York, N. Y. 807



Top: Simplex Model F wool spinning frame; bottom: Model 60 electro-pneumatic warp spooler (Davis & Furber).

Edda International (continued)

B. Gudjonsson
Exhibiting: Tying-in head of Titan warp tying machine. Literature on this and also the Titan automatic heddle indicator will also be available.

ELASTIC STOP NUT CORPORATION OF AMERICA
Union, N. J. 224
Bruce F. Linck, Sales Prom. Mgr.
D. E. Lally, Asst. Gen Sales Mgr.
A. J. Turner, Field Eng.
C. W. Dean, Dist. Mgr.
C. E. Heywood, Service Eng.
H. S. Gordon, Field Eng.
Exhibiting: Self-locking nuts and the new Rollpin, an all-purpose pressed-fit metal pin.

Printing type loom pick counter (Durant).

ERIEZ MANUFACTURING CO.
Erie, Pa. 568-570
R. F. Merwin
Don Underhill
E. C. Miller
Carl Harris
R. A. Roosevelt
Henry Hersey
R. C. Hoff
J. F. Kern
Exhibiting: Three magnetic separators including: a spiked apron magnet for installation above the aprons of feeders; a magnetic hump element for use in textile pneumatic lines to provide protection against fire and machinery damage; and magnetic pulleys. In addition, magnetic traps for installation in pipelines ahead of pumps, rotary magnet floor sweepers for picking up ring travelers, etc., and a large variety of plate magnets will be shown.

THE FAFNIR BEARING COMPANY
New Britain, Conn. 252-253
Charles F. Stanley, Vice-Pres.
Donald M. Davidson, Asst. Gen Sales Mgr.
A. G. Laughridge, Branch Mgr.
R. B. Bramhall, Branch Mgr.
T. A. Savage, Branch Mgr.
S. D. Berg, Branch Mgr.
C. A. Berg, Sales Mgr.
J. B. Stewart, Rep.
George Raley, Sales Prom. Mgr.
T. L. Hunt, Adv. Mgr.

Fafnir Bearing (continued)

Exhibiting: Special applications of Fafnir bearings on textile equipment.

FAIRCHILD PUBLICATIONS
New York, N. Y. 351

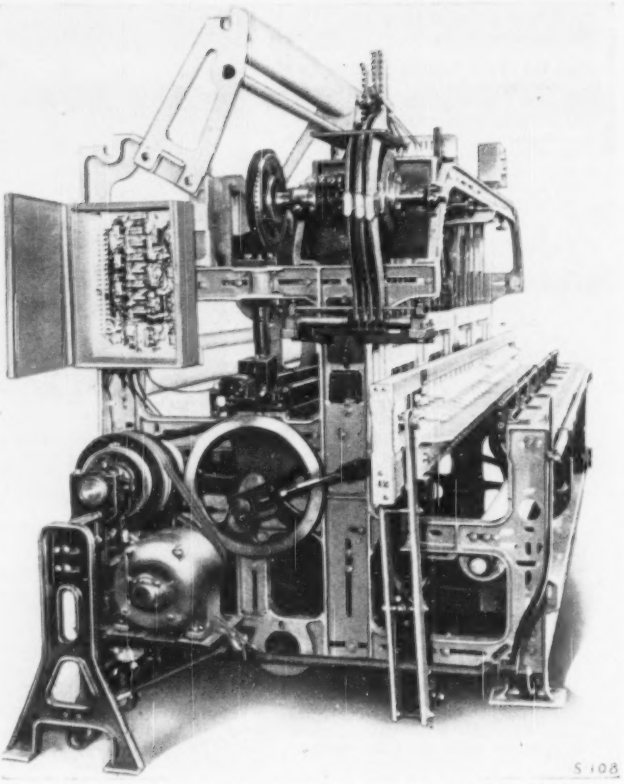
THE FELTERS COMPANY
Boston, Mass. 39
L. H. Hansel, Pres.
E. M. Guillaume, Exec. V. P.
R. V. Dwyer, Sales Mgr.
G. W. Eldridge, Chief Eng.
P. M. Wheeler, Asst. Chief Eng.
C. M. Hull, Mgr. N. Y. Office
C. F. Kirkpatrick, Asst. Mgr.
J. W. Morrison, Mgr., Phila. Office
Exhibiting: Unisorb pads for simplifying the anchoring of textile machines on all types of floors and for controlling transmitted vibration and noise.

FLETCHER WORKS, INC.
Philadelphia, Pa. 453-462
R. J. Batholomew
Fletcher Schaum
W. H. Rometsch
Charles W. Moore
John M. Crozier
Warren Egee
Raymond Winward
T. B. Baldridge, Jr.
T. M. Jackson, Jr.
F. W. Warrington
George Dudley
Exhibiting: Post-war developments in narrow fabric looms, throwing machinery for rayon and nylon, and centrifugal extractors. New machines to be shown are: a semi-automatic high speed loom weaving ribbon and zipper tape; the "Master Duplex" doubler-twister which produces a 2-lb package and is especially recommended for twisting spun rayon and zero twist nylon; and also the "Twintainer" extractor with removable containers having self-dumping and labor saving advantages.

THE FORMICA COMPANY
Philadelphia, Pa. 357
R. P. Bennett, Mgr., Bobbin Div.
L. J. Francisco, Branch Mgr.
A. J. Lesbirel, Branch Mgr.
Exhibiting: Gyrotex bobbins which by the nature of their construction assure dynamic balance, freedom from distortion by heat and moisture, strength to withstand winding strains, lightness in weight and smooth contact surfaces. Bobbin heads are offered in a choice of more than 50 colors for rapid lot identification.

FOSTER MACHINE COMPANY
Westfield, Mass. 425-432

THE FOXBORO COMPANY
Foxboro, Mass. 451-452
C. E. Sullivan, Vice-Pres.
W. H. Ridley, Sales Mgr.
H. H. Michelmore, Sales Eng.
J. W. Gordon, Sales Eng.
Joseph Esherick, Branch Mgr.
George Hammer, Sales Eng.
G. E. Clark, Branch Mgr.
S. C. Alexander, Branch Mgr.
R. E. Beers, Sales Eng.
F. J. Pichard, Sales Eng.
J. E. Booth, Sales Eng.
W. W. Barron, Branch Mgr.

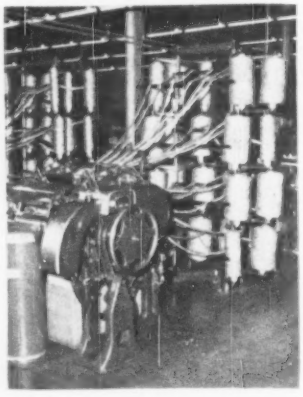


High speed semi-automatic narrow fabric loom (Fletcher).

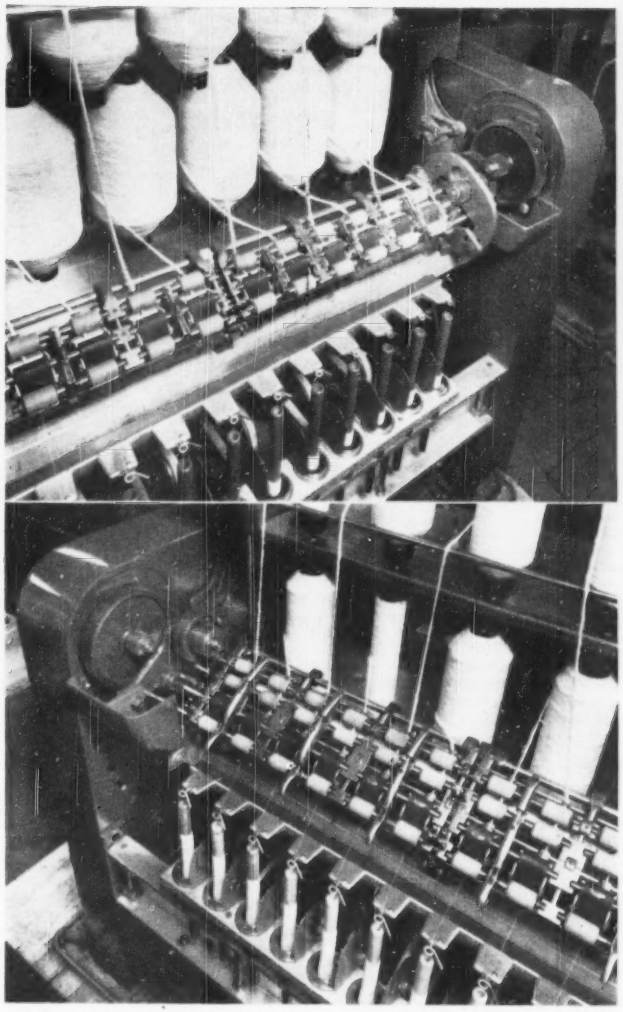
Foxboro (continued)

Exhibiting: Model 40 CycleLog controller for automatic control of dyeing cycles and similar batch operations; this will be shown in operation under simulated actual conditions. Multi-Record Dynalog will be exhibited as used for air conditioning applications, with zone type chart, for recording dew-point and dry bulb temperatures at different locations throughout a mill. A Dynalog recorder will demonstrate the fast response and high sensitivity of this instrument to temperature changes. A density controller, shown in operation, will maintain controlled conditions in a vessel. A deferred action elapsed time-temperature controller for automatic control of the cooking and storing of size in the same kettle, will be of interest. "Packaged Unit" control cabinet for a full decating machine will be on display. Also, pneumatic loading control for dye jigs and other roll type machines.

Italian-made French type worsted comber installation (Frankl).



ERNEST L. FRANKL ASSOCIATES
New York, N. Y. 802-804
Dr. Carlo Comini, Managing Dir., Sant' Andrea
Dr. Giovanni Caviglia, Sales Mgr., Sant' Andrea
Ernest L. Frankl, U. S. Rep.
Gunther Frankl, U. S. Rep.
Exhibiting: Small segments of French worsted combing, preparation and spinning equipment manufactured by S. A. Officina Mec-



Top: Casablancas Super High Draft System; bottom: Four-Roll High Draft System (H & B American).

canica Sant' Andrea of Novara, Italy. Of special interest will be a new type high draft spinning frame and new French rectilinear comb, as well as a diagrammatic presentation of how modern French-type worsted machinery can best be used in American mills.

THE FULLER BRUSH COMPANY
Hartford, Conn. **704**

GENERAL ELECTRIC COMPANY
Schenectady, N. Y.
574-578, 563-567

J. M. Olive, Exhibit Spec.
J. W. Holt, Mgr., Text. Ind. Sec.
R. R. Prechter, Appl. Eng.
R. J. DeMartini, Appl. Eng.
R. R. Lang, Appl. Eng.
C. B. Keolliker, Text. Ind. Sec.

General Electric (continued)

R. P. Kloeti, Text. Ind. Sec.

Exhibiting: Adjustable speed drives (speed variator, ACA motor, and Thy-mo-trol), slasher drives, standard and flywheel loom motors, screenless textile motor, electronic shuttle detector, yarn tension device, totally enclosed water-cooled motor, loom switch, and assorted control. Also, photomurals on power distribution and card drives, and a model of a unit substation.

DAVID GESSNER COMPANY
Worcester, Mass. **206-211**

THE GIRDLER CORP., INC.
Louisville, Ky. **49-50**

Lamar Roy

Girdler (continued)

Sam Welch
J. P. Thurman
Harold E. Huber
Gene Wedereit

Exhibiting: Votator apparatus for the production of warp size. Advantages claimed for the equipment include: highly stabilized, uniform size of exact viscosity desired; starch savings run to 10% or more; savings in steam, labor, and floor space; processing operation is continuous, virtually automatic, flexible and economical.

GLASCO EQUIPMENT CORP.
Paterson, N. J. **810**

M. G. Peck, Pres.
W. A. Swanson, Sales Rep.

Exhibiting: Photographs of stainless steel equipment for the dyehouse, including a dye beck, dye jig enclosure, dyehouse truck, dry can, dye beck reels, and a dye tub.

GRATON & KNIGHT COMPANY
Worcester, Mass. **349AA-349BB**

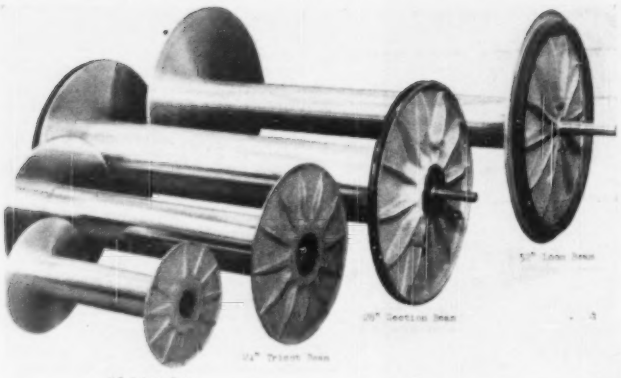
Elliott C. Paddock, Vice-Pres.
John G. Henrikson, Asst. Sales Mgr.
Leslie C. Street, Mgr., Textile Leathers Dept.
R. W. Davis, Branch Mgr.

Exhibiting: Draper Model X-2 loom equipped with Hairitan textile loom leathers. Also featured in the product display will be the recently improved Pickmaster picker, Spintex spindle bumper strap, Spartex check strap, Boxmaster binder leather, and Grakorub rub aprons.

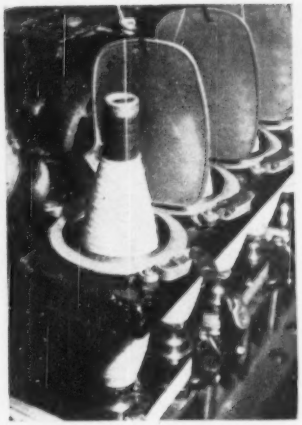
H & B AMERICAN MACHINE CO.
Pawtucket, R. I. **144-158**

Wm. A. Sipprell, Jr.
Elmer J. McVey
W. M. Fraser
J. C. Martin
W. E. Conlon
C. Rimmer
C. Walsh
S. Walsh
J. Cruickshank
N. M. Shippee
A. Muelberger
F. A. Odell
E. Haswell

Exhibiting: Three new developments in spinning: (1) The H&B Casablancas Super High Draft System—a three-roll system with a set of double aprons; it features a new design of cap bars, roller stands weighting, cradles, and tensors. (2) The H&B Casablancas Four-Roll High Draft System—it is equipped with saddles of the more flexible type and a new design of spring weighting. (3) The H&B Casablancas S-3 System—a three-roll system with double aprons between the front and second lines. Developed originally for synthetics and blends, the system is so flexible as to permit spinning of all fibers from 1" to 3" in length. It features a new type saddle, and has a cradle design with interchangeable platforms for different staple lengths. A five-roll, 10" x 5" high draft slubber will be in operation. A roving



Light metal beams (Hayes Industries).



Spinning frame equipped with conical steel rings and holders (Herr).

tester and an assortment of rings and spindles will also be on display. Literature on other machines in the line will be available.

HART-MOISTURE-METERS
New York, N. Y. 613

Exhibiting: Instruments for accurately gauging the moisture content of textiles in all forms.

GEORGE S. HARWOOD & SON
Worcester, Mass. 463-464, 467-484

Exhibiting: A completely new Bramwell woolen card feeder which will be in operation on a 72-inch wide three-cylinder set of Davis & Furber woolen cards. Representatives of George S. Harwood & Son will be on hand in the Davis & Furber Machine Co., exhibition spaces to receive their friends.

HAYES INDUSTRIES, INC.
Jackson, Mich. 586

E. C. Hetherwick, Pres.
G. B. Vass, Asst. Gen. Mgr.
W. H. Maxson, Sales Mgr.
J. E. Prins, Prod. Mgr.
D. C. Bender, Chief Eng.
J. P. Laird, Rep.

Exhibiting: Aluminum and magnesium section beams, tricot beams and loom beams.

HAYSSEN MANUFACTURING CO.
Sheboygan, Wis. 88-89

Wm. A. Hayssen, Pres.
F. Horwitz
F. Perry
George Laing
J. C. Johnston
R. P. Wilson
H. Sharp
Harold White
J. Leavitt
H. F. Lockwood
Hugh Evans
Adolf Sichel
H. E. McAvoy

Exhibiting: A textile wrapping machine; it will be wrapping sheets and blankets in either Cellophane or Pliofilm.

THE HERMAS MACHINE COMPANY, INC.
Hawthorne, N. J. 341-343, 343AA

HERR MANUFACTURING COMPANY, INC.
Buffalo, N. Y. 84, 85

Hyatt B. Atwood, Pres.
Charles M. Kitzmiller

Exhibiting: Conical steel rings and holders. Also a complete line of recently developed nylon eccentric light weight flyers to accommodate the tensioning of fine denier yarns at high speeds.

HOLDSWORTH GILL SCREW COMPANY, INC.
Providence, R. I. 702, 703
(See Atkinson, Haserick & Co., Inc.)

R. H. HOOD COMPANY
Philadelphia, Pa. 315, 320

E. F. HOUGHTON & COMPANY
Philadelphia, Pa. 370-370AA

D. J. Richards, Vice-Pres.
Frank Ross, Asst. to Vice-Pres.
W. H. Brinkley, Div. Gen. Sales Mgr.
J. R. Clendenning, Div. Sales Mgr.
C. B. Kinney, Mgr., Textile Sales
O. H. McClay, Sales Rep.
H. E. Peterson, Sales Rep.
H. H. Kirkpatrick, Sales Rep.

Exhibiting: Warp size compounds, surface active agents, rayon and wool oils, textile lubricants, a new synthetic rubber fabricated strapping for harness and jack straps, leather lug straps and check straps, "Vim Tred" leather belting for spinning frame drives, and "Okay Tred" leather belting for loom drives.

HOWARD BROTHERS MANUFACTURING COMPANY
Worcester, Mass. 339-340

HUBBARD SPOOL COMPANY
Chicago, Ill. 587

Fred Rappleyea, Chief Eng.
J. A. Landers, Southern Rep.
R. M. Stout, Mgr., Textile Div.

Exhibiting: Aluminum section beams, loom beams, and tricot beams. Also, metal-bound plywood loom beam flanges and loom beams designed particularly for the cotton textile industry. Stainless steel bobbins for the throwing industry will be shown and, in addition, aluminum bobbins of various types for twisting. Newly developed picker sticks and plastic quills will also be on display.

PHILIP V. HUGUES & SONS
Philadelphia, Pa. 47, 48

Philip V. Hugues, Owner
Joseph W. Hugues, Rep.
Samuel C. Ruch, Rep.
Edw. Wittschiebe, Rep.
George Hill, Rep.
C. E. Clifford, Rep.
Paul R. Young, Rep.

Exhibiting: Heavy duty portable vacuum cleaning equipment ranging in size from ¼ to 5 hp, featuring wet or dry pick-up for minimizing fire hazards due to dust or lint without shutting down production machines, instantaneous emptying of moistening troughs, and fast removal of oil and water spillage. Floor maintenance machines for wet or dry scrubbing, waxing, polishing, and steel-wooling, will be also shown. A new quiet type tri-motor suction unit for wet or dry pick-up will be introduced which features inverted filter design, eliminating the need for emptying a dirty dust bag.

HUNT MACHINE WORKS, INC.
Greenville, S. C. 31, 32

John O. Hunt, Pres.
John Richardson, Vice-Pres.
Wm. E. Henderson, Sec. & Treas.
Paul E. Bruchon, Asst. Sales Mgr.
R. R. Hood, Sales Rep.
Thomas Starmont, Sales Rep.

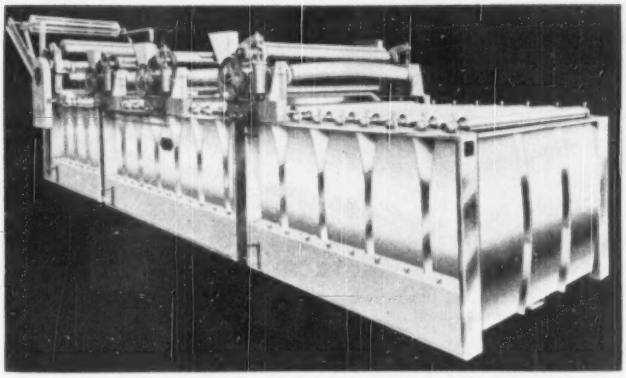
Warner Electric Brake Mfg. Co.

Steven Wood, Vice-Pres.
George Oetzel, Vice-Pres.
N. K. Anderson, Sales Mgr.
James A. Mason, Dev. Eng.
Don Pierceval, Sales Rep.
Roger Brown, Sales Rep.

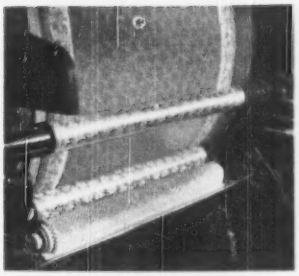
Woodman, Rayfield & Potter Co.

B. S. Woodman, Pres.
Robert F. Allen, Vice-Pres.

Exhibiting: Looms



Tensitrol open width washer (Rodney Hunt).



Metlkor furnisher brush on a printing machine (Jenkins).

RODNEY HUNT MACHINE CO
Orange, Mass. 159-164

E. F. Harris, Vice-Pres.
B. M. Jones, Mgr., Textile Mach. Div.
M. G. Hopkins, Sales Rep.
L. M. Phillips, Sales Rep.
H. F. Creegan, Sales Rep.
T. W. Kitchen, Sales Rep.
H. H. Belcher, Development Eng.
W. J. Simonds, Sales Mgr.

Exhibiting: "Tensitrol" line of machinery for both rope and open-width washing of cottons and rayons in a completely relaxed condition.

JAMES HUNTER MACHINE CO.
North Andover, Mass. 218-221, 228-231, 113, 114

J. H. Hunter, Vice-Pres.
Frank Morrill, Vice-Pres.
J. E. Burdick, Sales Eng.
Alex Dahlgren, Sales Eng.
Ernest Cannity, Sales Eng.
Douglas Spink, Sales Eng.
David A. Hoadley, Dev. Eng.
Julian A. Woodworth, Dev. Eng.
Karl Noetzel, Dev. Eng.

Exhibiting: The Flexreel tensionless washer of rope and open width types; an adjustable reel dye kettle for dyeing sample pieces from a few yards to a complete cut; and also a new stainless steel open soaper for rayon and cotton finishing.

HYATT BEARINGS DIVISION
General Motors Corporation Harrison, N. J. 292-293

H. M. Carroll, Adv. Mgr.
H. K. Porter, Gen. Sales Mgr.
O. W. Young, Chief Eng.
J. R. Gilmartin, Asst. Gen. Sales Mgr.
W. L. Iliff, Mgr. Eastern Sales
F. U. Naughton, Sales Eng.
E. Maurushat, Sales Eng.
E. P. O'Neill, Sales Eng.
L. C. Fisk, Sales Eng.
J. M. Grady, Eng.
H. J. Conlan, Eng.
W. F. Mattison, Sales Rep.
C. C. Wardell, Asst. Adv. Mgr.

Exhibiting: Roller bearings for looms, cards, spinning frames and other preparatory and finishing machinery. Hy-Load, Wound Roller, and Junior Roller bearings will be displayed with particular reference to their application to new and existing textile equipment. Featured will be four sectional drawings of textile machinery illustrating points at which roller bearings can be used to improve machine performance and enhance the quality of the finished cloth.

THE INDUSTRIAL DRYER CORP.
Stamford, Conn. 103, 104

P. H. Friend
J. R. Tutt
F. W. Caesar

Exhibiting: The "H-W" conditioner for 15 denier monofilament nylon hosiery, equipped for all-electric operation.

INDUSTRIAL STEELS, INC.
Cambridge, Mass. 349

F. A. Gorman, Vice-Pres.
R. C. Cunningham, Mgr.
R. J. Chestnut, Sales Eng.
Robert Mason, Sales Eng.
Paul Chapman, Sales Eng.
W. E. Fluke, Sales Prom. Mgr.

Exhibiting: Stainless steel items that can be used in the fabrication of textile equipment. This will include stainless steel sheets, hardware, fittings, valves, pumps, tubing, and 100 grit stainless steel sheet finish.

INDUSTRIAL TAPE CORP.
New Brunswick, N. J. 26

J. A. MacCarthy, Mdse Mgr.
J. B. McLaughlin, Sales Mgr.
N. P. Hickok, Asst. Tech. Ser. Dir.
A. Duus, Tech. Ser. Rep.
A. M. Wagner, Div. Mgr.
J. S. DeNoia, Div. Mgr.
L. Brudno, Asst. Adv. Mgr.

Exhibiting: A complete line of pressure sensitive tapes.

INVINCIBLE VACUUM CLEANER MANUFACTURING COMPANY
Dover, Ohio 47, 48

(See Philip V. Hugues).

M. W. JENKINS SONS, INC.
Cedar Grove, N. J. 354

R. B. Jenkins
S. E. Worden
Frank Tantum
A. J. Christensen

Exhibiting: A complete line of brushes for textile processing machines as follows: (1) Printing—color furnishing, brushing prior to printing, blanket washing and drying, soaping (for screen printing). (2) Cotton and Rayon Mills—carding, shearing, brushing, and reed cleaning. (3) Woolen and Worsted Mills—flock raising and laying, carding, combing, singeing, pressing, teasel cleaning, teaseling (or wet brushing), polishing, steam brushing. (4) Carpet Manufacture—carding, color furnishing, combing, shearing, brushing prior to printing, sizing, brushing. (5) Special uses—shade cloth coating, thread dressing, pin tentering. In addition to these, a novel display will be featured which consists of a "Metlkor" cylinder brush driven by a variable speed motor; the brush will be dynamically balanced so that when a weight is attached creating an unbalanced condition, the obvious effect will be demonstrated.

THE JOHNSON CORPORATION
Three Rivers, Mich. 800, 801

R. O. Monroe, Pres.
R. W. Gotschall, Dist. Sales Mgr.
C. Wilson Gill, Advance Eng. Co.
Herbert Anable, Advance Eng. Co.
John Croes, Advance Eng. Co.
Allan T. Shepherd, Allan T. Shepherd Co.
William T. Harding, Jr.
T. H. Abbey, Abbey Steam Spec. Co.
James J. Brogan, Brogan & Co.
W. J. Brogan, Brogan & Co.

Exhibiting: An operating demonstration unit consisting of a rotating glass cylinder representing a dry can, slasher, calender and compressive shrinking machine cylinder. On one end of the rotating glass cylinder will be installed a new type rotary pressure joint with body support lugs, and on the opposite end of the glass cylinder will be installed the new type "S" self-supporting rotary pressure joint. Inside the cylinder will be installed and in actual operation the Johnson Speedheet System as used on print cans and the five and seven foot cotton slasher cylinders.

KEARNY MANUFACTURING COMPANY, INC.
Kearny, N. J. 601, 602

R. H. Sommer, Export Mgr.
George Westwater, Sales Mgr.
Dr. K. Heyman, Chief Chemist
A. R. Robbins, Chem. Eng.

Kearny Mfg. Co. (continued)

N. L. E. Fawcett, Canadian Rep.
Harold Mahon, Southern Rep.
C. C. Withington, Southern Rep.
W. P. Russell, Southern Rep.

Exhibiting: Yarn conditioning equipment, including the Surco method for conditioning cones while being built on winders and the Spray Meter for conditioning cops—layer for layer—while being packed into cases or cartons. Also, psychrometers for instantaneous determination of moisture in raw material, yarns, and fabrics, and determining relative humidity.

THE KENT COMPANY
Rome, N. Y. 47, 48
(See Philip V. Hugues).

WALTER KIDDE & CO., INC.
Belleville, N. J. 44AA, 44BB
C. L. Griffin
Jay S. Gosnell
D. M. Kroll

Exhibiting: Tension compensating devices, including the twin disc high speed high twist tension compensator.

LAMBETH ROPE CORPORATION
New Bedford, Mass. 346
A. L. O'Leary, Jr., Sales Mgr.
Frank Burke
Julian P. O'Leary
Harry T. Perkins
Frank L. Gray

Exhibiting: Spinning and twister tapes, bandings, and loom supplies.

W. T. LANE & BROS., INC.
Poughkeepsie, N. Y. 40

Exhibiting: Canvas boxes and trucks. Featured will be a canvas box which is designed primarily for cotton mill doffing and transporting of yarn through the various operations until it reaches the loom, eliminating dumping of yarn anywhere along the line. Canvas conditioning baskets that have the advantage of being splinter-free, light weight, and comparatively long lived will be interesting.

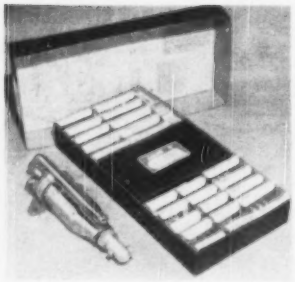
F. A. LAZENBY & COMPANY
Baltimore, Md. 248, 249
Joseph Lazenby
F. Marion Lazenby
O. R. Payne

Exhibiting: Model T-Jr. cop and butt winder, Model K bobbin winder, and Model DH-400 spooler, all of these machines featuring recently developed centralized lubrication systems. Also on display will be a bobbin winder with precision measured yardage.

THOMAS LEYLAND MACHINERY COMPANY, INC.
Boston, Mass. 45AA, 45BB

LESTERSHIRE SPOOL & MFG. COMPANY
Johnson City, N. Y. 713
J. H. Windle, Jr., Asst. Sales Mgr.
A. W. Clinton, Engineer
F. C. Weir, Purchasing Agent
W. H. Hobbs, Engineer

Exhibiting: Specialized bobbins for all branches of the textile industry. Featured will be bobbins for use in manufacturing and processing nylon.



CentrOiler centralized lubrication system kit (Lincoln).

LINCOLN ENGINEERING CO.
St. Louis, Mo. 588
Alex P. Fox, President
T. V. Picraux, Sales Mgr.
A. Woodland, Spec. Rep.
A. Laspe, Design Eng.
R. Crean, Spec. Rep.
B. S. Davis, Div. Mgr.
T. W. Carlson, Sales Eng.
R. Kruse, Sales Eng.
M. C. Hazenfield, Terr. Supv.
F. Goodman, Sales Prom. Mgr.

Exhibiting. Packaged centralized lubrication systems for machines requiring periodic applications of oils. Also, centralized Centromatic lubrication systems will be shown in operation. Power-operated, heavy duty drum pumps, high pressure and volume bucket pumps, manually operated grease guns, grease fittings, and other accessories will be on display. In addition, a new all purpose grease fitting, designated the "Kleenseal Bullneck Grease Fitting," will be shown.

LINK-BELT COMPANY
Chicago, Ill 90-94
William J. Nighbert, Mgr. Dist. Sales

Exhibiting: Variable speed wind-up drives with both hydraulic and electronic controls; a motorized P.I.V. operating unit with hydraulic control; a slasher P.I.V. variable speed drive; a dry can roller chain drive; silent chain drive and Electrofluid drive for cards; also a display of the company's modern ball and roller bearing blocks, chains and other products used by the industry.

H. E. LIVERMORE CORPORATION
Boston, Mass. 111-112

LIVINGSTONE ENGINEERING COMPANY
Worcester, Mass. 364BB

Exhibiting: The "Speedylectric" Steam-Jet Cleaner JC-30 LCS which has been designed specifically for cleaning looms. It is all electric and easily portable and features exceptional maneuverability; being only 20 inches wide it can be used in narrow alleys between looms.

LOCKWOOD GREENE ENGINEERS, INC.
New York, N. Y. 79
Samuel B. Lincoln, Pres.

Lockwood Greene (continued)

Robert E. Barnwell, Vice-Pres.
Leo M. Geraghty, Textile Eng.
Thomas O. Ott, Jr., Textile Eng.
H. M. Rogers, Jr.
Howard E. Cousins, Vice-Pres.

Exhibiting: Photographs and machinery layouts of rayon manufacturing plants, cotton and woolen mills, cotton and rayon finishing plants, and hosiery mills on which firm served as architects-engineers.

LYDON BROTHERS, INC.
Hackensack, N. J. 68
T. Lydon, Pres.
P. J. Lydon, Sec. & Treas.
J. V. Calhoun
A. H. Forster
C. H. Gingher
J. P. McBride

Exhibiting: Latest twist setters and conditioners for silk, rayon, nylon, cotton and worsted yarns. Emphasized will be the application of this equipment in the nylon full-fashioned hosiery field. Also featured will be drying equipment for skeins and packaged goods.

Ansco Color Densitometer for determination of color of textiles, etc. (MacBeth).

MCGLYNN-HAYS INDUSTRIES
Belleville, N. J. 156AA, 157AA

MACBETH CORPORATION
New York, N. Y. 362
Norman Macbeth, Pres.
George E. Scofield, Vice-Pres.
J. F. Slaughter, Sales Rep.
E. F. Slaughter, Sales Rep.

Exhibiting: The Ansco Color Densitometer, a new precision electronic photometer of the direct reading type, for precision determination of the color of solid substances such as textiles, etc., as well as many other uses. In addition, color matching skylights, cotton classing skylights, and pH meters will be available for examination by visitors.

MANTON-GAULIN MANUFACTURING COMPANY, INC.
Everett, Mass. 6-7
Donald G. Colony, Pres.
Harold P. Woodcock, Adv. Mgr.
Lance H. Rees, Tech. Dir.
Henry C. Perry, Rep.
Robert E. Sidebotham, Rep.
Joseph J. Dwyer, Rep.

Exhibiting: textile homogenizers for

slashing and finishing applications.

THE MARQUETTE METAL PRODUCTS COMPANY
Cleveland, Ohio 144AA, 144BB

W. P. Russell, Rep.
Byrd Miller, Rep.
C. H. White, Rep.
J. J. Hallissy, Rep.

Exhibiting: Heavy duty twister spindles for 12-lb packages of tire cord, special spindles for operation with Du Pont pirns, spindles for woolen and worsted frames. To be shown for the first time is a new woolen spindle featuring a spring clutch drive which centers the bobbins and holds them firmly in place, yet permits easy doffing; also a new heavy duty twister spindle made in five sizes with capacities up to nine pounds.

MARSHALL & WILLIAMS CORP.
Providence, R. I. 212-217

Richmond Viall, Pres.
John C. Nash, Sales Mgr.
Fred H. Land, Southern Mgr.
Albert J. Cole, Sales Rep.
Joseph F. Smart, Sales Rep.
James A. Love, Export Agent

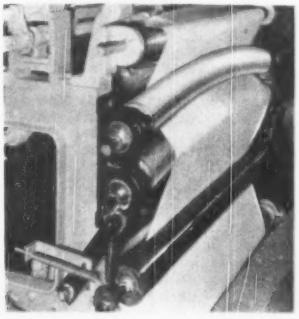
Exhibiting: Two new products—the No. 10 pin type tenter chain and a positive overfeed and guider which is being manufactured under license from Tootal, Broadhurst, Lee Co., Ltd., of Manchester, England. According to the manufacturer, the overfeed provides a positive control of the amount of slack in the tenter dryer, accurately regulating this slack from minus 5% up to plus 30%; it will operate at speeds up to 100 yards per minute, will handle all types of cloth, and is adaptable to existing types of tenter frames. A high speed tenter frame, a No. 11 roller clip type tenter chain and various types of tenter clips and parts will also be shown.

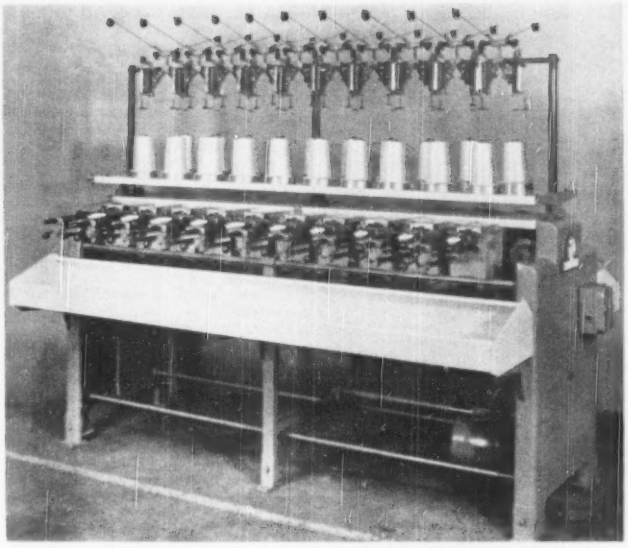
MAWACO MACHINE COMPANY
Brooklyn, N. Y. 806

MEESE, INC.
Madison, Ind. 359

MICRO-LITE COMPANY, INC.
New York, N. Y. 616
Albert Gelardin

Slack selvage eliminator (Mount Hope).





The Foster-Muschamp "Fillwinder" (Muschamp Taylor).

Micro-Lite (continued)

Robert Levitt, Vice-Pres.
Dave Green
James Loughlin

Exhibiting: The Micro-Line Counter for instantaneous determination of the number of ends and picks per inch in a fabric sample.

A. MILNE & COMPANY
New York, N. Y. 571

J. King Hoyt, Jr.
F. J. Grant
H. M. Benham

Exhibiting: Timken graphitic steels and cams and cam followers made from these, six grades of standard analysis tool steels in tubular form, "Stressproof" steel for spindles, shafts, gears, etc., and leaded steel which is said to be the fastest machining steel on the market.

MILTON MACHINE WORKS
Milton, Pa. 344

J. Stanley Billig, Sales Mgr.
Charles J. Anchor, Chief Eng.
W. DeWitt Leinbach, Pres.
George W. Blunt, Prod. Mgr.

Exhibiting: All-metal warp beams for broad, narrow fabric, ribbon, velvet and carpet looms; also, light metal section beams.

MINNEAPOLIS-HONEYWELL REGULATOR COMPANY
Philadelphia, Pa. 701

Charles W. Bowden, Jr., Textile Industry Mgr.
Drew Daubert
James Broughton
James Gilmore
Nels Evoy
J. D. MacNamara
L. F. Lawrence
J. E. MacConville
John D. Root
Harry D. Ruch

Exhibiting: New and complete models of measuring, indicating and controlling instruments; also valves and accessories. Featured will be instrumentation for slasher, dye kettle, dryer, kier boiling, size cooking, bleaching and other operations. Among the newer devices will be a circular chart electronic Moist-O-Graph, and a program for dye kettle control.

MORRISON MACHINE COMPANY
Paterson, N. J. 433-448

James L. Morrison, Pres.
James R. Morrison, Vice-Pres.
John C. Morrison, Vice-Pres.
John Kreeft, Chief Eng.
A. V. Caporossi, Sales Eng.
C. W. Curts, Adv. Mgr.
D. M. McSpadden, Rep.
B. Scantland, Rep.
A. C. Freeman, Jr., Rep.

Exhibiting: Dyeing, bleaching, processing, and finishing machinery of the latest design.

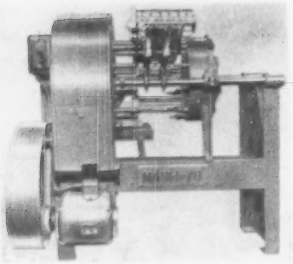
MORSE CHAIN COMPANY
Detroit, Mich. 555, 556

R. J. Howison, Gen. Sales Mgr.
H. R. Greenley, Asst. Sales Mgr.
I. A. Horton, Adv. Mgr.
D. C. McNeely, Mgr. Distr. Sales
E. E. Wesselhoff, Sales Eng.
R. G. Brust, Sales Eng.
H. N. Tyler, Sales Eng.

Exhibiting: A new slip clutch drive for carding machines. Also, roller chain drives, flexible couplings and clutches for textile machinery.

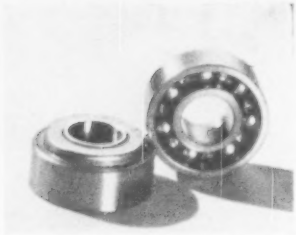
MOUNT HOPE MACHINERY CO.
Taunton, Mass. 371, 371AA

J. D. Robertson, Pres.
John D. Robertson, Jr., Factory Rep.
Walter P. Murray, Sales Eng.
R. E. Blackmar, Rep.
P. J. Murdock, Jr., Rep.
John H. Andresen, Rep.



No. 79 automatic quill polisher (Nash).

Grease lubricated ball bearings for spindles (New Departure).



Mount Hope (continued)

H. Hartley, Rep.
S. S. Wilson, Rep.
A. B. Julin, Rep.
E. F. Slaughter, Rep.
J. Fred Slaughter, Rep.
N. F. Batchelder, Rep.
K. G. Little, Rep.
E. W. Schmiedel, Rep.
A. M. Romero, Rep.

Exhibiting: An operating demonstration unit consisting of the following Mount Hope equipment: an automatic continuous roll feed with cloth level control and end of roll warning control, the new electric roll lift let-off, the slack selvage eliminator, the open width tension device, precision guiders, push button operated bowed weft straightener and combination single and multi-roll skewed weft straightener. In addition stainless steel guiders, free wheeling expanders, and other cloth and plastic handling devices will be shown.

MUSCHAMP TAYLOR, LTD.
Manchester, England 401-404

Exhibiting: The new reaching-in machine developed by Wool Industries Research Association in conjunction with Electrical Productions, Ltd.; it is said to be capable of operation on varied counts and qualities of plain and fancy yarns. In addition, the following winding machines will be on display: Auto-Braid winder, Auto-quill winder, Auto-Thread winder, the Foster-Muschamp "Autofill" fully automatic pirn winder, the Foster-Muschamp "Fillwinder" for high speed filling winding, and the Foster-Muschamp "Superfill" for coreless solid filling winding.

J. M. NASH COMPANY
Milwaukee, Wis. 614-615

Otto Barz, Service Eng.
J. A. Christensen, Sales Rep.
E. L. Jasper, Sales Rep.

Exhibiting: The No. 88 automatic bobbin refinisher and the No. 79 automatic quill polisher. The quill polisher will be in operation and the bobbin refinisher will be under power for demonstration purposes. A new unit was recently developed for the quill polishing machine which permits the mill to relacquer its own quills; it will be on display. Also a tip chucking unit, now under test, will probably be shown. It is designed to enable mills to refinish badly marred quill tips.

THE NATIONAL DRYING MACHINERY COMPANY
Philadelphia, Pa. 33-34

Ralph C. Parkes, Pres.
David A. Colker, Sales Mgr.
H. Mason Clark, Jr., Chief Eng.
Norman Kern, Jr., Plant Supt.
H. O. Kaufmann, Sales
A. M. Zeller, Jr., Sales
J. J. Nihill, Sales
F. W. Warrington, Sales
George W. Dudley, Jr., Sales

Exhibiting: Scale models of a loop dryer, tenter dryer, print goods dryer, cake dryer, yarn dryer, and nylon setting machine.

NEW DEPARTURE DIVISION
General Motors Corporation
Bristol, Conn. 117AA, 117BB

Michael T. Monich, Textile Eng.
Rodger D. Brouwer, Textile Eng.
Frank J. Miller, Gen. Sales Mgr.
Alwin A. Gloetzner, Regional Mgr.
Frederick J. Garbarino, Mgr. Bearing Applications
Seth H. Stoner, Chief Eng.
Lorne F. Lavery, Asst. Gen Sales Mgr.
Donald H. Browne, Zone Mgr.
Clifton S. Fleet, Zone Mgr.
James P. Gillilan, Regional Mgr.
Ray E. Honeycutt, Sales Eng.

Exhibiting: Treadle roll bearings for looms, featuring heavy construction, double sealed for protection from lint and dirt and to prevent lubricant leakage, factory lubricated for life of bearing, maximum capacity and long life. Also, precision ball bearings for spindles that are sealed for grease lubrication; according to the manufacturer, power requirements for spindles on these bearings is reduced by 25% or more and tape life increases 300%. Bearings operate for at least 30,000 hours before lubrication is required.

NEW YORK & NEW JERSEY LUBRICANT COMPANY
New York, N. Y. 42

Falls L. Thomason, Dist. Mgr.
William E. Bierlin, Mech. Eng.
Carroll A. Campbell, Loom Lubr. Div.
L. L. Hoyt
H. H. Beaman
Donald G. Beaman
J. T. Pool
F. W. Phillips
J. A. Sorrells, Jr.

Exhibiting: A pyramid of lubricant drum heads, blinking pyramids of small packages, revolving discs that will show the various densities of "Non-Fluid" oil, and samples of textile lubricants.

JOHN P. NISSEN, JR., COMPANY
Glenside, Pa. 710

Chandler Ford
Milton A. High

Exhibiting: Writing tubes for marking silk, wool, nylon, rayon, cotton, and other fabrics in dyehouses and bleacheries.

NORCROSS CORPORATION
Newton, Mass. 400

Austin S. Norcross, Pres.
Ralph E. Howell, Branch Mgr.
Frederick J. Eimert, Rep.
Leonard DiIoia, Field Eng.

Exhibiting: Recording viscometers for control of viscosity of warp and singe end sizing solutions. In addition, a pressure regulator for slasher squeeze rolls.

OAKITE PRODUCTS, INC.
New York, N. Y. 705

J. J. Basch, Div. Mgr.

Exhibiting: A complete line of specialized cleaning and related products for the textile industry. Featured will be materials for cleaning looms and other textile machines, for slime removal and treatment of water in mill humidifying systems, and for safe removal of rust from heddles and reeds. New developments in paint stripping materials will be shown. Also materials for descaling water-cooled processing equipment and a steam cleaning gun.

OPTICAL ASSOCIATES
Pawtucket, R. I. 707

P. O. M. COMPANY
New York, N. Y. 585

(See Werner Textile Consultants)

PANAMERICAN PUBLISHING COMPANY
New York, N. Y. 372, 373

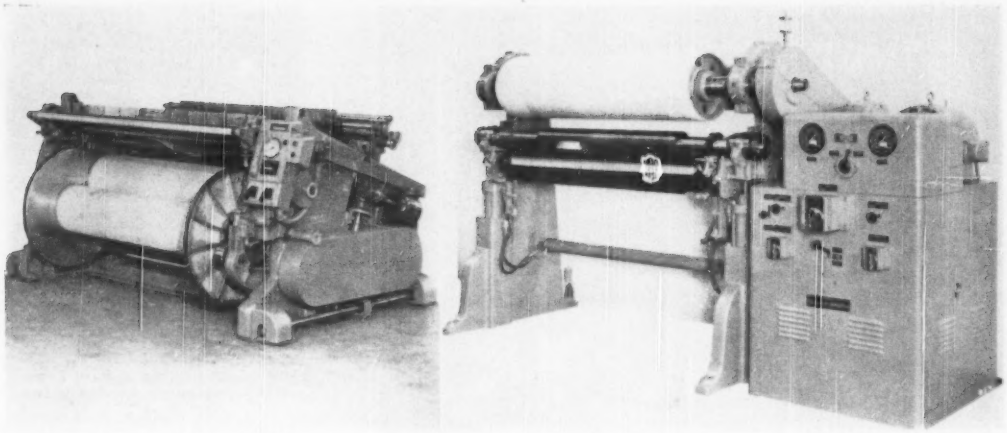
PARKS-CRANIER COMPANY
Fitchburg, Mass. 138-143

R. S. Parks, Chairman
H. M. Parks, Pres.
Maynard Ford, Treas. & Gen. Mgr.
J. R. Henderson, Sou. Sales Mgr.
L. F. Ross, Export Sales Mgr.
P. B. Beers, Sales Eng.
W. E. Buck, Sales Eng.
W. J. Buck, Sales Eng.
J. F. Crooks, Sales Eng.
O. G. Culpepper, Sales Eng.
W. B. Granger, Sales Eng.
H. B. Rogers, Sales Eng.
W. B. Walker, Sales Eng.

Exhibiting: Parks Certified Climate equipment for textile mills, ranging from small, self-contained humidifiers through complete central station air washer equipment. Traveling cleaner equipment for spinning, twisting, winding, warping, spoolers, etc., as well as for cleaning the overhead areas will also be on exhibit.

PENICK & FORD, LTD., INC.
New York, N. Y. 590

D. P. O'Connor, Vice-Pres.
H. A. Horan, Sales Mgr.
P. G. Wear
O. R. Steffens
L. C. Harmon
D. F. Lowry



Left: full width beaming machine (Reiner); right: single color hydraulic printing machine (Rice Barton).

Penick & Ford (continued)

W. J. Kirby
T. H. Nelson
Exhibiting: Space for visitors.

B. F. PERKINS & SON, INC.
Williamanset, Mass. 130-133

PLATT BROS. (SALES) LTD.
Oldham, England
714-717, 716AA, 717AA
(See Atkinson, Haserick Co.)

PNEUMAFIL CORPORATION
Charlotte, N. C. 68AA, 68BB
C. R. Harris, Pres.
G. E. Archer, Sales Eng.
J. W. Stuart, Sales Eng.
M. O. Thompson, Sales Eng.
W. U. Gaudet, Sales Eng.
J. Tillett, Jr., Sales Eng.
A. Schuler, Tech. Eng.
D. Spink, Service Eng.
Exhibiting: Pneumafil (pneumatic broken end collection) equipment on cotton, woolen and worsted spinning frames.

PROCTOR & SCHWARTZ, INC.
Philadelphia, Pa.
503-506, 508-513, 515-522, 524-529, 531-534

Textile Machinery Division
Harmon B. Riehl, Vice-Pres.
John H. Senior, Vice-Pres.
George Clee, Rep.
John Kolb, Rep.
James Lurwick, Rep.
T. J. Wilson, Sr., Br. Mgr.
J. P. Allen, Br. Mgr.
H. R. Zayotti, Br. Mgr.
Exhibiting: An automatic blending system for stock which features a roller distributor and blending box; uniform blends are automatically prepared with this arrangement. A number of diagrammatic illustrations will show how the basic principles of the system are being varied in actual mill installations to meet individual mill requirements. Also a metallic worsted card will be shown. Both of these pieces of equipment will be in operation. Automatic stock conveying systems, weighing feeds, garnetts, etc., will be displayed by means of photographs and diagrams.

Dryer Division
Myron T. Fleming, Sales Mgr.
H. B. Black, Rep.
W. A. Dickinson, Jr., Rep.
F. Marshall, Rep.
B. A. Plesser, Rep.
W. H. Poole, Rep.
C. W. Schwartz IV, Rep.
C. S. Tiers, Rep.
W. A. Dickinson, Sr., Rep.
W. J. Merrigan, Rep.
L. P. Tiers, Br. Mgr.
C. W. Schwartz III, Br. Mgr.
John R. Schenck, Br. Mgr.
Thomas Mahan, Br. Mgr.
John W. Reinhardt, Adv. Mgr.
Pierre Blommers, Asst. Adv. Mgr.
Exhibiting: Motion pictures depicting recent developments—such as the Vat-Craft process for photochemical development of dyes, machinery for producing Redmanized shrunk-to-fit knit goods, an automatic rug scouring and drying system. An automatic preboarding machine for nylon hosiery will be in operation. An actual demonstration of the "breathing" principle of the Proctor impact dryer is planned. Yarn drying equipment, dryers for piece goods, equipment for curing resin treated fabrics, the overfeed pin tenter and equipment for nylon setting will be shown photographically and diagrammatically.

PROGRESSIVE MACHINE COMPANY, INC.
Paterson, N. J. 554

RAYON & SYNTHETIC TEXTILES
New York, N. Y. 272

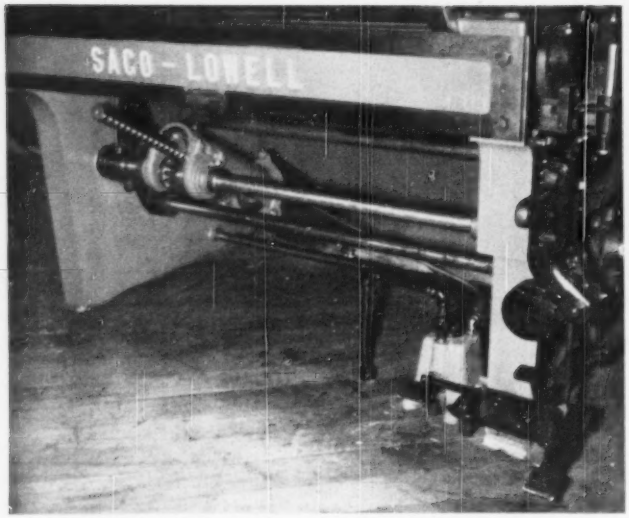
REEVES PULLEY COMPANY, INC.
Columbus, Ind. 313, 314, 321, 322

ROBERT REINER, INC.
Weehawken, N. J. 73-78
Dr. Robert Reiner
Fritz Lambach
August Schoenenberg
George Moebius
Exhibiting: Full width beaming machine with a flange diameter up to 36 inches and up to 84 inches between heads; a sectional warper, Model SW-24 with a yarn storage device; and a magazine creel section demonstrating the different types of stop motions available and the use of nylon pirn holders, rayon and cotton cones, etc.

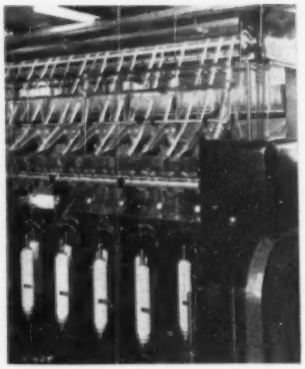
THE RELIANCE ELECTRIC AND ENGINEERING COMPANY
Cleveland, Ohio 363
E. E. Helm, Vice-Pres.
K. S. Lord, Dist. Mgr.
C. D. Herbert, Dist. Mgr.
L. M. Dunning, Dist. Mgr.
E. G. Orahood, Dist. Mgr.
W. H. Behnke, Textile Appl. Eng.
C. E. Robinson, Text. Appl. Eng.
R. L. Curtis, Sales Prom. Dept.
K. F. Ertell, Adv. Mgr.
Exhibiting: Integral horsepower electric motors and adjustable speed drives operating from a-c circuits. Special features include a V*S drive operating a section of a typical textile range which incorporates the Reliance VSC electronic control for timed rates of acceleration and deceleration, and the Reliance VSS unit for tension and speed control between units.

REPUBLIC STEEL CORPORATION
Cleveland, Ohio 708, 709
J. H. Fishel, Sales Eng.
Gene Rowland, Sales Eng.
C. E. Roberts, Asst. Sales Mgr.
E. E. Bang, Adv. Div.
C. W. Ruth, Dir. of Adv.
Robert Shrake, Rep.
Exhibiting: Products for the textile industry fabricated from stainless steel.

J. E. RHOADS & SONS
Philadelphia, Pa. 352, 352AA
J. Edgar Rhoads, Firm Member
Richard H. Rhoads, Firm Member
C. Robert Mitchell, Div. Mgr.
C. H. Tildes, Div. Mgr.
C. D. Wright, Div. Mgr.
J. Warren Mitchell, Sales
A. Sidney Jay, Sales
Louis H. Schwoebel, Sales
Exhibiting: The new Bi-Cut check strap for looms, along with other



Pneumatic picker calender roll pressure system (Saco-Lowell).



Roving frame utilized in Saco-Lowell system for spinning worsted yarns.

J. E. Rhoads (continued)

industrial leathers. Space for visitors.

RICE BARTON CORPORATION
Worcester, Mass. 45, 46
Exhibiting: A single-color hydraulically controlled printing machine suitable for printing on all types of fabrics and on vinyl film.

JOH. JACOB RIETER & CO., LTD.
Winterthur, Switzerland 309-312
Henry Steiner, Managing Dir.
F. Preysch, Sales Mgr.
Martin Staehli, Chief Erec. Eng.
F. Dietchie, Rep.
George Westwater, Rep.
John F. Dulken, Jr., Eng.
Exhibiting: Cotton and worsted ring spinning frames with both spindle rail and ring bank movable; also a new fly frame.

RIGGS & LOMBARD, INC.
Lowell, Mass. 222, 223
H. C. Riggs, Pres.
C. J. Lombard, Vice-Pres.
F. C. Ames, Sales Rep.
Harold R. Wilcox, Eng.
J. W. Malloy
Exhibiting: A laboratory size dyeing machine, primarily designed for dyeing raw stock but also adaptable to dyeing skeins, a single top, or packages. Also on display will be photographs of this manufacturer's complete line of dyeing, bleaching and finishing equipment, including carbonizing ranges, washers, dye becks, fulling mills, jigs, stock dye kettles, top dyeing machines, etc.

B. S. ROY & SON COMPANY
Worcester, Mass. 344AA
Duncan H. Dewar, Pres.
Duncan H. Dewar, Jr., Treas.
Herman C. Schwager, Supt.
John Buckley, Foreman

B. S. Roy (continued)

Exhibiting: An improved floor frame grinder and lathe for grinding two rolls at the same time. A 5" extra heavy steel shell chain traverse grinder is provided, along with a crosshead with V bearings for grinding shorter work. The improved turning rest or lathe with adjustable stands may be easily removed from the grinder frame for use on cards.

RUDELL MACHINERY CO. LTD.
Montreal, Canada 449

S K F INDUSTRIES, INC.
Philadelphia, Pa. 465, 466
R. H. DeMott, Vice-Pres.
R. Robert Zisette, Gen. Sales Mgr.
H. A. Fonda, Dist. Sales Mgr.
H. S. Dimmick, Dist. Sales Mgr.
C. N. Benson
B. K. Lathbury
B. F. Davis
Arthur B. Studley
F. J. Matte
J. C. Northrop
J. C. Gayler
P. W. Dunlap
Exhibiting: Roller bearing spindle bolsters and ball bearing tape tension pulleys for spinning and twisting frames, standard bearings of different types and sizes, and pillow blocks for general use on textile equipment. A section of a spinning frame equipped wtih 16 spindles and four tension pulleys also will be on display.

SACO-LOWELL SHOPS
Boston, Mass. 405-424
Exhibiting: A new development to be shown for the first time—a pneumatic pressure system for picker calender rolls; it maintains a constant pressure throughout the building of the lap. In addition to improvement in the evenness and density of the lap, a greater yardage is packaged on a lap of the same diameter. The system replaces the conventional leather-covered brake. The Saco-Lowell system for spinning worsted yarns will be another feature of the exhibit—one drawing frame, one roving frame, and one spinning frame will be shown; elimination of the use of roving cans is one of the system's unique characteristics. In addition, the FS-2 roving frame with the FS-2 drafting system designed for cotton and short synthetic fibers, will be displayed; it is capable of drafts over 30. A sample spinning frame will be equipped with Z-2 spinning on one side and Shaw spinning on the other. A 1950 model comber will be shown, together with sample arrays of fiber to demonstrate its ability to extract a high percentage of short fiber with a minimum loss of long staple; production of this machine is said to be 6% higher than previous Saco-Lowell models.

SAENTIS, INC.
Union City, N. J. 706

SARCO COMPANY, INC.
New York, N. Y. 250, 251
Albert Milnes, Mgr. Ind. Sales
Exhibiting: Four types of steam traps, pipe line strainers, and specialties for steam and hot water heating systems. Featured will be draining and air venting systems for dry cans, slashers, and other types of rotary dryers in textile mills; also, temperature regulators for dyeing and finishing plants.

C. G. SARGENT'S SONS CORPORATION
Graniteville, Mass. 225, 226

GEORGE SCHERR COMPANY
New York, N. Y. 609
Exhibiting: Hand tachometers and speed indicators; also a variable speed reducer and an illuminated magnifier for inspecting textiles, etc.

SCHMIDT MANUFACTURING CO.
New Bedford, Mass. 269
Clayton E. Schmidt, Sales Mgr.
Vincent R. Schmidt, Dev. Eng.

Schmidt (continued)
Hugh E. Schmidt, Treas.
Jerry McCarthy, Rep.
Theodore Huston, Rep.
W. W. Jordan, Sales Mgr.
Exhibiting: Recently developed or improved loom accessories, including "Plastic-Bonded" canvas lug straps, high speed leather check straps, "Texwood" laminated and impregnated type picker sticks for box looms, "PX" treated leather lug holders, special picker stick guide for C&K looms, "Texcor" bumper straps with special live center for high speed box looms, two-piece aluminum "Galland" loom swell, loom reeds of all types, and a special "Lugstick" for wide C&K looms.

SCOTT TESTERS, INC.
Providence, R. I. 41
Harold Horton
David C. Scott, Jr.
Exhibiting: For the first time the IP-2 "Serigraph" with 15" "Tensilgram" recorder; a single-end yarn and thread tester, X-5, for tensile strength and elongation tests up to 20 pounds; and also the Model J skein yarn and cloth tester equipped with the recently developed clamp, Model A5. The Model W ball burst attachment for knitted fabrics will be displayed in conjunction with the Model J tester.

SEYDEL-WOOLLEY & CO.
Atlanta, Georgia 820
Walt Whisnant
Paul V. Seydel
Exhibiting: Half-scale model of Niagara twist setter conditioning miniature filling bobbins.

SHELL OIL COMPANY, INC.
New York, N. Y.
356AA, 356BB
C. B. Huntoon, Staff Eng.
F. C. Rule, Staff Eng.
Exhibiting: Photographs showing how products are applied to various processes and equipment used in the textile industry. A new product, Shell Alvania, a multipurpose grease for antifriction bearing lubrication, plain and grease-packed bearings, and slides and cams, will be on display; also two other new products: Shell Cotton Spray Oil and Wool Processing Oil.

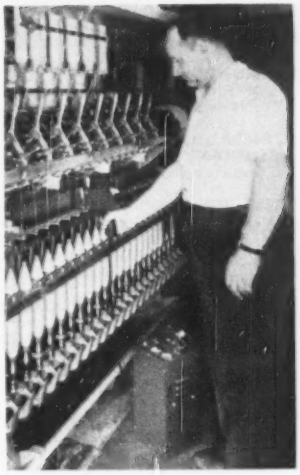
SINGER SEWING MACHINE CO.
New York, N. Y.
259, 260, 260AA

JAMES SMITH & SON, INC.
Worcester, Mass. 316-319

SMITH, DRUM & COMPANY
Philadelphia, Pa. 55-67
Harry S. Drum
William C. Dodson
Albert P. March
Perry Parrott
Joe Ballentine
John P. G. Patton
Robert N. Smith
Exhibiting: Dyeing and finishing machinery, including package dyeing equipment, combination package and beam dyeing machines, skein dyeing machinery and hosiery dyeing equipment.

SOCIETE ANONYME ADOLPHE SAURER
Arbon, Switzerland 706
Dr. S. Remy, Sales Mgr.
F. Forrer, Asst. Sales Mgr.
Exhibiting: The Saurer automatic loom, type 100W, fitted with positive dobby; also a card punching apparatus with copying device. Some of the features of this loom are: low build affording maximum visibility, all parts are accessible from the sides eliminating the necessity for crawling under the loom to make repairs, 95% of parts can be used for either left or right hand drive, with the result that stock of spare parts can be reduced to a minimum, can change number of picks per inch by adjusting a scale, centralized lubrication.

SONOCO PRODUCTS COMPANY
Hartsville, S. C. 71, 72
C. H. Campbell
E. S. Reid
W. B. Broadbent
A. H. Gildersleeve



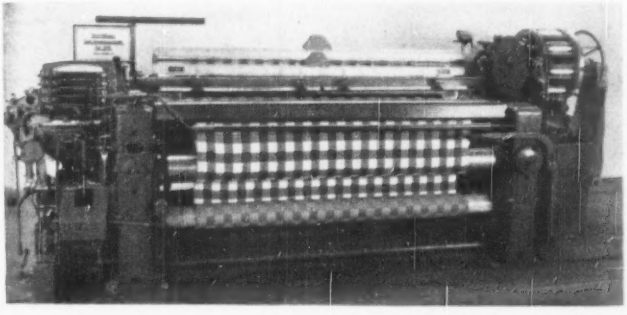
Measuring yarn evenness with the Yarn Checker (Standard Electronic).

Sonoco (continued)
Ken Lewis
A. W. DuBose
R. J. Fletcher
L. H. Stokes
Hugh Campbell
John A. Reagan
Mertis Carpenter
E. J. Cotter
Harry Lamarche
Walter Hillsgrove
Charles S. Burnham
Owen Fayne
J. A. Durkin
O. D. Duckett
W. A. Biggs
John B. Coxe
P. F. Williams
John Long
Exhibiting: A complete line of cones, tubes, cores, cots, spools, and bobbins.

STANDARD ELECTRONIC RESEARCH CORP.
New York, N. Y. 271
Exhibiting: The Yarn Checker for yarn evenness measurement on the spinning frame as the yarn is being spun; the Yarn Analyser;

IP-2 "Serigraph" with 15" "Tensilgram" recorder (Scott).

Type 100W automatic loom with positive dobby (Saurer).



the Electron Micrometer yarn evenness tester and the Yarn Integrator, a statistical machine.

STANDARD MILL SUPPLY COMPANY
Providence, R. I. 51-53

STANDARD PRESSED STEEL COMPANY
Jenkintown, Pa. 605

STEEL HEDDLE MFG. CO.
Philadelphia, Pa.
365-367, 365AA
374-376, 376AA

O. T. Daniels
Adolfo Cortes V

Exhibiting: A loom in operation with Ste-Hed-Co loom harness equipment and Southern shuttles. Also a product display will include flat steel heddles, loom harness frames, loom reeds, warp and yarn preparation equipment, a full line of shuttles, etc., and literature pertaining to all products.

STELLITE AMERICAN CORP.
New York, N. Y. 817-819

Victor Saxl, Sales Mgr.

Exhibiting: Italian-made machinery for the manufacture of worsted, rayon, and blended yarns. A rectilinear comber of special monoblock construction operates at speeds of 110-125 nips per minute; it is equipped with a burring device. An intersecting gill box with rubbing aprons delivers a well condensed sliver of about 50 grains per yard; it is used as 3rd or 4th passage in Continental spinning and is recommended for use preceding the roving frame in American and Bradford systems. An open (non-intersecting) gill box makes slivers for lower count yarns that can be processed directly on long draft spinning frames. A high draft 400-spindle ring spinning frame features the patented Hartmenn-Tolegno long draft with average drafts of 15; it is equipped with Pneumafil anti-balloon and anti-marriage devices, 4-spindle tape drives, etc.

STERLING ENGINEERING & MANUFACTURING COMPANY
Wilkes-Barre, Pa. 364AA

George McGee, Vice-Pres.
C. A. Woodruff, Vice-Pres.

Exhibiting: Self-stacking stainless steel and cadmium plated bobbin, cone, shell, and tube boards. Also, yarn handling trucks for bobbins and cones, and quill boards for Abbott winder with automatic board loading attachment.

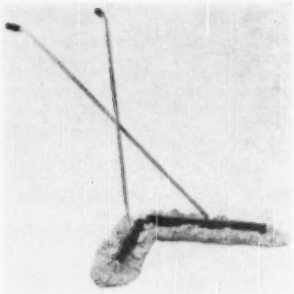
STEWART-WARNER CORP.
Chicago, Ill 355, 356

SYKES, INC.
Boston, Mass. 358

SYNTHANE CORPORATION
Oaks, Pa. 8

R. R. Titus, Pres.
H. Widdop, Sales Mgr.
E. E. Smith, Asst. Sales Mgr.
J. K. Johnson, Dist. Mgr.
R. B. Galloway, Sales Rep.
C. B. Moss, Sales Mgr.
F. C. Nave, Sales Rep.
G. A. Ebelhare, Supt.

Exhibiting: Laminated plastics for the textile industry, including all types of bobbins, pirns, redraw caps, rollers, hosiery examining forms and drier poles.



The "V-Mop" for sweeping in narrow weave room alleys (Tennant).

THE TAKK CORPORATION
Newark, Ohio 589

TAYLOR INSTRUMENT COMPANIES
Rochester, N. Y. 551-553

H. G. Olson, Textile Sales Mgr.
F. S. Ward, Ind. Sales Mgr.
J. S. Detwiler, Div. Sales Mgr.
J. Barber, Application Eng.
J. E. Hart, Rep.
K. W. Kugler, Rep.

Exhibiting: A new direct and continuous reading size viscosity recorder for size box, storage kettle, or size loop installation; a modern control system for efficient and economical wool scouring; a dye kettle controller with adjustable rate of rise, hold time and hold temperature; a control panel for package or beam dyeing that is said to assure (1) greater uniformity of dyeing, (2) closer matching of shades, (3) thoroughness of dyeing, and (4) steam and labor savings; automatic cotton slashing control system; demonstration unit of "Transaire," the new temperature or pressure transmitter with exceptional speed of response and accuracy.

You are cordially invited to visit the booths of

TEXTILE INDUSTRIES

during the Exhibition.
Atlantic City Auditorium
May 8-12
Space 353, 353AA

Representatives of our editorial, business, and circulation departments will be on hand to greet you.

We'll see you there!

G. H. TENNANT COMPANY
Minneapolis, Minn. 273, 274

O. C. Hognander, Vice-Pres.
George D. Billings, Adv. Mgr.
Robert F. Guthrie, Div. Mgr.
Walter Boyer, Div. Mgr.
Hill F. Trube
Raymond E. Shumway
A. H. Jackson
Patrick A. Mamfra
Warner H. Emerson

Exhibiting: A newly developed power sweeper designed for high speed sweeping of textile mill floors, warehouses, etc.; the entire unit is less than 29 inches wide and has a capacity exceeding 43,500 sq. ft. per hour. Also featured will be a new "V-Mop" which operates like a pair of scissors, opening or closing to sweep a path from 6 inches to 57 inches wide; this makes it easy to sweep in narrow weave room alleys, congested areas and under machinery. Specialized machines and equipment for reconditioning, preserving and maintaining textile floors by the Tennant dry-cleaning process will also be shown.

THE TERRELL MACHINE CO.
Charlotte, N. C. 277-287

E. A. Terrell, Pres.
E. A. Terrell, Jr., Vice-Pres.
W. S. Terrell, Vice-Pres.
J. F. Notman, Sales Rep.
J. R. Hartmann, Sales Rep.
M. H. Ridenhour, Jr., Sales Rep.
E. T. Gavin, Sales Rep.
H. K. Smith, Sales Rep.

Exhibiting: Quill and bobbin cleaning machinery and bobbin handling equipment including bobbin box hoist and bobbin conveyors: Roto yarn conditioning machine and cotton comber. Loom pickers and other rubber and fabric loom supplies will be on display.

THE TEXAS COMPANY
New York, N. Y. 345

TEXTILE AGE
New York, N. Y. 459

TEXTILE BULLETIN
Charlotte, N. C. 275

TEXTILE INDUSTRIES
Atlanta, Ga. 353, 353AA

R. P. Smith, Exec. Vice-Pres.
John C. Fonville, Editor
Maynard L. Durham, Business Mgr.
J. Frank Guest, Assoc. Ed.
Paul M. Platzman, Assoc. Ed.
Redfern Hollins, Prom. Mgr.
W. K. Hoffman, Representative
Arthur C. Shaw, Representative
L. E. Allen, Representative
E. I. Leeds, Jr., Cir. Dept.

TEXTILE WORLD
New York, N. Y. 357AA, 357BB

TON-TEX CORPORATION
New York, N. Y. 43-44

R. E. L. Holt, Jr., Br. Mgr.
David R. Sellars, Field Eng.
Floyd A. New, Field Eng.
Francis X. Minich, Field Eng.
W. P. Davis, Jr., Field Eng.
T. F. Alcott, Field Eng.
G. H. Rees, Field Eng.

Ton-Tex (continued)

E. A. Crosby, Field Eng.
T. A. Lombardi, Asst. Sales Mgr.
A. N. Alexander, Dev. Eng.
R. J. Gugger, Asst. Dev. Eng.
J. S. Meyers, Div. Sales Mgr.

Exhibiting: Heavy duty belting, Oil-Ex belting for oily drives, Lapless Endless belts for spinning and coning, vulcanizing plate for use in vulcanizing belts on equipment where it is not possible to install an endless belt, and Ve-E-Zy Segmatic V belting which is packaged on spools in lengths of 100 feet. In addition, harness and loom strapping and other textile specialties will be on display.

TRUMETER COMPANY
New York, N. Y. 612

Exhibiting: A new ribbon and tape measuring machine featuring an automatic brake which prevents over-spin and thereby insures accuracy. Also a cloth inspection machine manufactured by Henry Livesey, Ltd., of England will be on display; it embodies many new features, according to the manufacturer. In addition, a piece-end sewing machine manufactured by William Birch (Engineers) Ltd., of England will be shown.

TWEEDALES & SMALLEY, LTD.
Castleton, England
714-717, 716AA, 717AA

(See Atkinson, Haserick & Co.)

U. S. BOBBIN & SHUTTLE COMPANY
Lawrence, Mass. 348AA

U. S. GUTTA PERCHA PAINT COMPANY
Providence, R. I. 262

Howard F. Eastwood, Asst. Sales Mgr.
Alex S. West, Gen. Sales Agent
C. Leon Park, Sou. Dist. Mgr.

Exhibiting: An electric motion display which will feature "Barreled Sunlight" paint products for textile mill maintenance. Also, a special demonstration of a new product—acid and alkali resistant coating.

U. S. TEXTILE MACHINE COMPANY
Scranton, Pa. 124-129

A. W. Thomas, Jr., Sales Mgr.
A. W. Thomas, Sec. & Gen. Mgr.
P. J. Thomas, Chief Eng.
J. Saunders Williamson, Sou. Rep.

Exhibiting: Modern, high speed throwing equipment, featuring twisters with newly designed tapered end package attachments for nylon and other yarns.

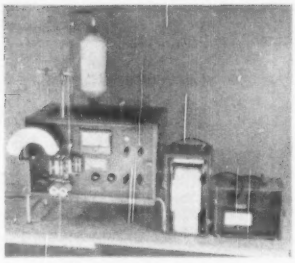
UNIVERSAL WINDING COMPANY
Providence, R. I.
165-179, 276, 288

Robert Leeson, Pres.
E. O. Smith, Vice-Pres.
W. S. Warren, Sales Mgr.
K. H. Inderfurth, Prom. Mgr.
T. L. Cotter, Exec. Sales Agt.
W. L. Paulhamous, Asst. Sales Mgr.

Exhibiting: Winding and twisting equipment.

USTER CORPORATION
Charlotte, N. C. 68AA, 68BB

Exhibiting: An evenness tester with electronic integrator, a warp tying machine, and a drop pinning machine.



Evenness tester with electronic integrator (Uster).

VAN VLAANDEREN MACHINE COMPANY
Paterson, N. J. 559-562

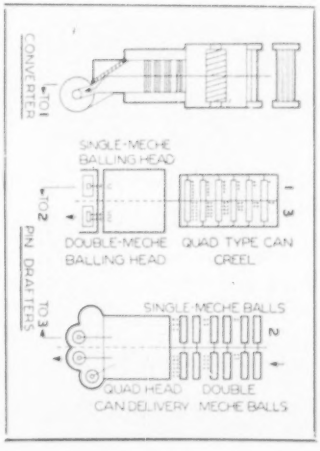
VEEDER-ROOT, INC.
Hartford, Conn. 264, 265

Graham H. Anthony
John H. Chaplin
Harvey L. Spaunburg
Arthur E. Kallinich
David J. Post, Jr.
George L. Logan
William H. Heydt
Walter E. Soderquist
John H. Yost
Theodore Nelson
Robert G. Perfect
Roger C. Conant
Frank J. Swords

Exhibiting: Representative types of every category of counting and computing device, including a new model of loom cut meter, the 2-3 convertible pick, hank, yardage and knitting counters, etc.

VENANGO ENGINEERING COMPANY, INC.
Philadelphia, Pa. 16AA, 16BB

Sketch showing set-up of Warner & Swasey exhibit featuring the Pacific Converter and Pin Drafter.



VICTOR RING TRAVELER CO.
Providence, R. I. 254, 255

E. R. Jerome, Sales Mgr.
E. P. Bodenheimer, Rep.
Elmer L. Connor, Rep.
Ernest Cranshaw, Rep.
J. K. Davis, Rep.
William T. Horton, Rep.
Byron H. Waterman, Rep.
Walter L. Hudson, Rep.
C. W. Wilbanks, Rep.

Exhibiting: Space for visitors.

WALKER MANUFACTURING COMPANY, INC.
Philadelphia, Pa. 82-83

Exhibiting: Latest line of flat steel heddles, heddle frames, and loom reeds for all types of looms and fabrics.

WALTON LABORATORIES, INC.
Irvington, N. J. 266-268

William Feldermann, Pres.
J. B. Feldermann, Adv. Mgr.
J. R. Lewis, Ind. Sales Eng.
B. W. Dickinson, Sales Eng.
C. A. Bourgeois, Sales Eng.

Exhibiting: Operating humidifying equipment. The most recently developed Model 30 humidifier will be featured.

THE WARNER & SWASEY CO.
Cleveland, Ohio 294-308

Exhibiting: An unusual operating set-up introducing the Pacific Converter and demonstrating the six types of the Pin Drafter in two machines specially assembled from standard units. The exhibit will demonstrate the role of these basic machines in a new, short universal system for making worsted yarns of synthetic fibers, or of synthetic and natural fiber blends.

WATSON & DESMOND
Charlotte, N. C. 579-581

S. P. V. Desmond
C. E. Watson
R. V. McPhail
Arthur J. Bahan
Walter F. Daboll
K. Brenna

Exhibiting: Heddles, heddle frames, warp stop motion, bobbins, spools, shuttles and other products for use in the weaving, spinning, and fly frame processes.

WATSON-WILLIAMS MANUFACTURING COMPANY
Billbury, Mass. 582-584

WAUKESHA FOUNDRY COMPANY
Waukesha, Wis. 572-573

Exhibiting: A positive displacement V-belt type pump unit. Also, a working model pump and a cutaway model, together with castings of "Waukesha Metal," stainless steel, aluminum, brass, bronze, in rough, semi-finished, and polished states.

WERNER MACHINE CO., INC.
Passaic, N. J.
120, 120AA, 120BB 120CC, 121, 121AA

Exhibiting: Equipment for a new patented system of jig dyeing, using a pair of suction tubes submerged in the jig tub with a stainless steel circulating pump to draw the dye liquor through the fabric in both directions, into the tubes and back into the jig tub. Improved

dye penetration and savings in dyestuff are claimed.

WERNER TEXTILE CONSULTANTS
New York, N. Y. 585
Herbert L. Werner, Partner
Rudolf M. Ashner, Partner
William B. Sears, Senior Proj. Eng.
Jack C. Werner, Adv. Mgr.
Exhibiting: A visual interpretation of the services rendered by this organization to spinning and weaving mills, ranging from surveys of mechanical conditions and processing methods to integrated overall manufacturing controls.

WESTINGHOUSE ELECTRIC CORPORATION
Pittsburgh, Pa.
95-99, 95A, 95B, 95C

WESTPORT FIBRE CORPORATION
Westport, Mass. 830, 831
Hugh Neville, Jr., Pres.
James Neville, Vice-Pres.
George Hopkinson, Sales Mgr.
Exhibiting: The Silver King 12"x36" roving can featuring a new one-piece metal bottom with a rolled top ring, all zinc plated with Lustron finish. The can itself is of seamless vulcanized fiber construction; finish on the can is an enamel which is said to reduce the static electricity problem. Also on display will be 14" and 15" roving cans, along with an entirely new product—a fiber glass one-piece molded roving truck featuring extremely light weight.

WHITIN MACHINE WORKS
Whitinsville, Mass.
180-199, 180AA, 189AA, 190AA, 199AA, 24, 25
E. K. Swift, Chmn. of Bd.
J. Hugh Bolton, Pres.
R. J. McConnell, Vice-Pres.
Harry Moss, Sales Exec.
R. A. Hargreaves, Sales Exec.
M. W. Keeler, Sales
S. B. Hyde, Sales
S. P. Spencer, Sales
F. Tattersall, Sales
A. C. Taylor, Sales
H. T. Heathcote, Sales
R. W. Rawlinson, Sales
R. F. Waters, Sales
R. B. Hutcheson, Sales
W. J. Dunleavy, Sales
Dean Cabot, Eng. Div.
F. E. Banfield, Jr., Eng. Div.
Carl Brandt, Eng. Div.
J. J. Foley, Foreign Dept.
E. M. Kennedy, Foreign Dept.
R. G. McKaig, Repair Div.
J. H. Bolton, Jr., Repair Div.
R. I. Dalton, Sales
R. I. Dalton, Jr., Sales
Z. Childers, Repair Div.
H. Banks, Repair Div.
C. Grieb, Repair Div.
R. W. Dunn, Sales
B. B. Peacock, Sales
M. J. Bentley, Sales
Exhibiting: Model "P2E" drawing frame, 4 delivery; Model "J" comber, 8 heads; Model "G8" Super-Draft roving frame, 36 spindles; Model "F2" spinning frame, 36 spindles; Model "P" twister, 40 spindles; Model "C6" twister, 20 spindles; Model "R" twister, 36 spindles; Model "F2S" spinning, 36 spindles (American System); Model "E" wool spinning frame, 48 spindles; 6-spindle Whitin-Schweiter winder; 4-spindle Schweiter Vario-Coner (Swiss). The Model P2E drawing frame is a new bi-coil type machine especially designed for the 14-inch diameter cans being produced on the Model J comber; an electronic stop motion is also incorporated in it. This will be the first showing of the Model "P" ring twister which incorporates many interesting developments of the past two or three years. Of particular interest to many mill men will be the Whitin-Schweiter winder unit and the Schweiter Vario-Coner which are equipped with a newly developed tying-in device for magazining supply packages in the creel. All of these machines will be in operation.

WILTEX, INC.
Cleveland, Ohio 610

WINSOR & JERAULD MANUFACTURING COMPANY
Providence, R. I. 289-291

WOONSOCKET NAPPING MACHINERY COMPANY
Woonsocket, R. I. 118, 118AA, 119, 119AA, 122, 123

YORK CORPORATION
York, Pa. 360-360AA 361-361AA

Information Received Too Late for Conventional Listing

American Textile Engineering Co.
(See listing on page 149)
Also attending:
John F. Dulkin, Jr., Eng.
A. Hefti, Eng.
P. A. Reuter, Chief Eng.
A. R. Robbins, Eng.
H. C. Sonntag, Eng.

Cleveland Graphite Bronze Co.
(See listing on page 153)
L. W. Christenson, Vice-Pres.
Drew McKenna, Sales Mgr. (East)
L. A. Douglass, Dist. Sales Rep.
E. J. Budinger, Chief Eng.
Exhibiting: Bearings and bushings for textile machinery.

Harris Products Co. (Subsidiary)
Robert Bradley, Vice-Pres.
Dan Bradley, Vice-Pres.
S. Standley, Dist. Sales Eng.

Cocker Machine & Foundry Co.
(See listing on page 152)
D. L. Friday, Sec. & Gen. Mgr.
J. C. Bodansky, Asst. Treas.
John Cocker III, Vice-Pres.
Exhibiting: A high speed rayon warper and creel.

Howard Brothers Mfg. Co.
(See listing on page 156)
Harold S. Bolger
Ralph C. Shorey
Charles A. Haynes, Jr.
Neal A. Mitchell, Sec. & Gen. Mgr.
Harry C. Coley, Pres.
Exhibiting: A Tuffer tension regulator; also samples of various types of card clothing, hand cards, and heddles.

Philip V. Hugues
(See listing on page 156)
Also in attendance:
Philip T. Hugues, Mgr.
Earl T. Kelly, Rep.
G. W. Blanchard, The Kent Co., Inc.
Les M. Thomas, Invincible Vacuum Cleaner Co.

Kearny Mfg. Co., Inc.
(See listing on page 157)
Also attending:
C. F. Dulkin, Pres.
H. C. Sonntag, Eng.
W. O. Schlimbach, Mgr. Domestic Sales
R. H. Sommer, Mgr. Export Sales
C. F. Jones, Rep.

Morrison Machine Co.
(See listing on page 159)
Also attending:
Harold Lacey, Supt.
K. T. Lendt, Lendt & Co., Inc.
G. V. Lamont, Lendt & Co., Inc.

Machinecraft, Inc.
Whitman, Mass. 618
Richard K. Butler
Albert Allwood

Exhibiting: Nylon plastic bolsters for ring spinning frames; manufactured by Nylon Bearings, Inc.

Joh. Jacob Rieter & Co., Ltd.
(See listing on page 162)
Also in attendance:
C. F. Dulkin, Sr., Rep.
N. L. E. Fawcett, Rep.
A. Gaechter, Rep.

C. G. Sargent's Sons Corp.
(See listing on page 162)
Exhibiting: A stainless steel scouring bowl with automatic controls and automatic feed.

James Smith & Son, Inc.
(See listing on page 163)
William B. Smith, Pres.
W. E. Christensen, Asst. Mgr.
Exhibiting: An improved Noble comb.

Van Vlaanderen Machine Co.
(See listing on page 165)
C. H. Van Vlaanderen, Pres.
George Van Vlaanderen, Vice-Pres.
Cornelius Van Vlaanderen, Treas.
A. Barber, Sales Eng.
G. Ricca, Sales Eng.
Exhibiting: For the first time, a new 15-ton padder featuring 19½" rolls, pneumatic pressure control, one panel operation and use of stainless steel throughout. Also, two jigs —the new C.T., a machine featuring better tension control, drag-free idling, easier and cleaner operation; and a tensionless jig. In addition a heavy duty tenter frame head will be displayed.

Windsor & Jerauld Mfg. Co., Inc.
(See listing on this page)
Thomas C. Roberts, Vice-Pres.
Edmond J. Schiller, Jr., Tech. Dir.
Cecil C. Keyworth, Sales Eng.
Exhibiting: Operating high speed tenter installation including a new No. 12 roller type chain, precision electronic control tenter guiders, improved reflected light type weft straightener.

EXCLUSIVE

Burling Operation Simplified

Staff Prepared

Design of burling board permits easy removal of stains. Continuous operation by one person.

ON BROAD woven woolen fabrics, burling is commonly done by two operatives who sit on chairs located at each end of a table. The cloth is pulled over the table by hand, and each operative examines half of the cloth. When one burler finds an objectionable knot, the other burler has to sit idle and wait until the knot is removed before continuing with the work.

The mechanic in one woolen mill devised a burling machine which he built in the mill shop. One operative now produces as much on the burling machine as two operatives did formerly. Some details of the machine may be seen in the accompanying photos.

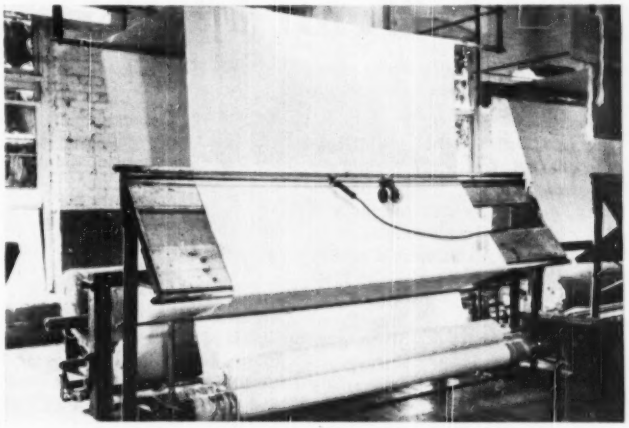
An inspection board is mounted on a slight incline at the proper level for an operative to stand while doing the work. The burler walks from one end to the other while the fabric is drawn slowly across the board by an electric motor equipped with a speed reducer.

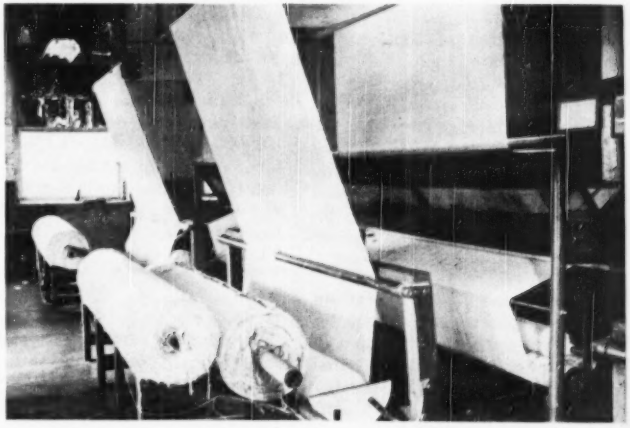
A slot across the center of the inspection board is covered with a piece of fine copper screen wire, and this is backed by a coarse gauge galvanized screen wire. The slot permits light to pass through the fabric to aid in inspection. A steam spotter, similar to those used in dry cleaning establishments, is used to remove oil spots from the cloth. In this operation, the screen wire serves to support the cloth while permitting the steam to pass through. A conventional yardage counter was attached to measure the cloth as it is wound onto rolls.

A feeder rack is arranged behind the machine. This rack serves to hold two extra rolls of cloth in readiness upon inspection of the roll in the machine. When one roll is inspected, the burler simply rolls another one onto a cradle which has four metal rollers to reduce friction on the heavy roll and allows it to unwind freely.

The mechanism is started and stopped by pulling a cord which actuates a converted foot switch mounted on the ceiling. Angle iron racks suspended from the ceiling serve to support the cloth on metal rollers as it is fed to the inspection table.

"Textile Industries" staff photos





Above, front view of burling machine. Below, rear view showing magazine. Note screen on burling board.

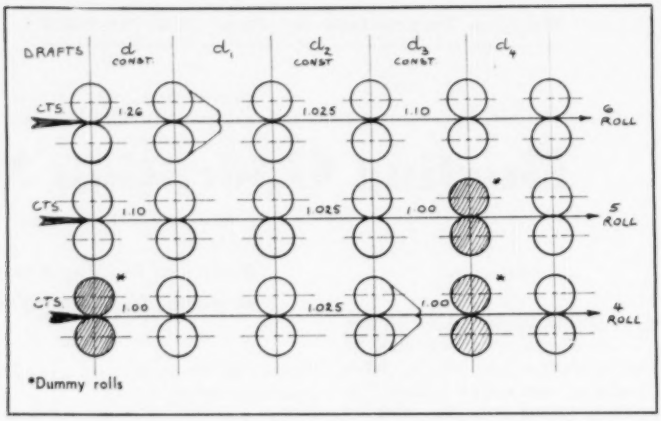


Fig. 1. Simplified sketch of 4-roll, 5-roll, and 6-roll drafting systems. Stock is fed in at left and emerges at right. Note dummy rolls indicated by an asterisk and cross hatch lines.

Draft Formula for Multi-Draft Fly Frame Systems

By **JOHN DUERST**
The Clark Thread Company

EXCLUSIVE

THE CONVENTIONAL 3-roll system of drafting for slubbers and intermediate frames has in many mills made way for modern 4, 5, or 6-roll arrangements.

mmon to all three is a middle draft field which divides the total draft in two parts. We speak therefore of "break drafts" and "front drafts" or by whichever name they are locally expressed

The break draft section is easily recognized as the old 3-roll system; the middle field draft is very low for the simple purpose of leading the drafted sliver to the front draft section.

With every additional set of rolls the drafting problem becomes more complicated and there is a need for some kind of drafting law or formula.

I shall try to furnish a formulation for drafts which may be applied to any of the modern multi-draft or compound draft systems. The formulas, while satisfying the writer, may easily be "adjusted" to suit "local" use, if so desired.

Conventional 3-Roll Drafting. This system is well known because it is universally applied. It consists of top and bottom intake rolls, followed by top and bottom middle rolls, and concludes with top and bottom delivery rolls (see Fig. 1). The first draft (d) ranges anywhere from a little over 1.00 to say 1.30 and may be called the lead-in draft; it is usually permanently adjusted as a constant draft. Draft (d_1) is the main draft which, for common purposes may easily be as high as 6.00 or slightly over.

This three-roll arrangement when part of a multi-draft system becomes known as the break draft section. The function expected is about the same as if this section were working independently.

The draft calculations of the three-roll group are simple:

If (Cts) is the counts fed, (d) the lead-in draft, and (d_1) the main draft, we have

$$\text{Total draft, } T = (d)\ (d_1)$$

$$\text{also, } T = \frac{\text{delivered count}}{\text{feed count}}$$

Description of 3-Roll Drafting. Feed count, (Cts), is taken in by first pair of rolls. Lead draft, (d), is drafting (Cts) into a finer count $= Cts_0$. Cts_0 is as a consequence the product (d) (Cts).

Cts_0 upon leaving middle rolls gets drafted by main draft, (d_1), and the product (d_1) (Cts_0) is the final delivered counts.

Plotting of Main Drafts. Let us now assume (from actual run) that a draft of 6.00 for d_1 would be about the correct workable draft for a feed count of $Cts_0 = 1.00$, that is, between middle and front rolls.

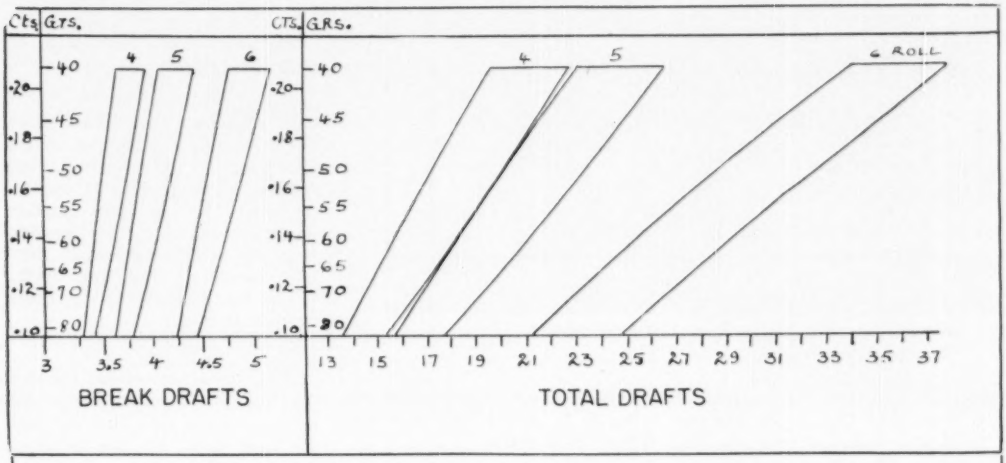
Let us also assume (which is reasonable) that larger bulks than $Cts_0 = 1.00$ would call for decreasingly lower drafts, until a 1.00 draft would be reached as a limit at $Cts_0 =$ zero. We would then have, if we plot these points on coordinate paper (Fig. 2), determined the points (1,0) and (6,1) on the curve. If we designate the point (1,0) on the x-axis as the vertex of a parabola, and point (6,1) as another point on this parabola, we may deduce the following: The general equation is

$$x^2 = 2py$$

$$\text{Or} \quad x = (\sqrt{2p})\ (\sqrt{y})$$

Since the vertex of the parabola is located at 1.00 on the x-axis, upon substituting, we have

$$x - 1 = (\sqrt{2p})\ (\sqrt{y})$$



How to Use Graph for Finding Drafts

(A) 1. Locate on vertical scale the weight of sliver to be drafted.

2. Trace horizontally to right to center of break draft field for the particular roll system in use.

3. From this center move vertically to bottom scale, reading off "permissible" break draft.

(B) 1. Locate again on vertical scale the weight or counts of sliver used.

2. Trace horizontally over to center of total draft field in question.

3. From this center locate again vertically on bottom scale the permissible total draft for the particular given count at the particular roll system.

Note: The break draft is entirely based on the immediate bulk fed in, but may be proportioned upward or downward, if total draft of lower or higher denomination is to be used.

It may also be noted that the total drafts in the chart are worked out for the given constant drafts and will change at different constant lead drafts.

$$\text{Total draft} = (dd_1d_2d_3)\ \ (3dd_1d_2d_3Cts + 3)$$

or

$$\text{Total draft} = 3d_1C\ \ [d_1C(Cts) + 1] \qquad (4)$$

and

$$d_1 = 3(d)\ (Cts) + 3 = 3\ [d(Cts) + 1] \qquad (3)$$

wherein:

Cts = Feed Counts

C = Product of constant drafts = dd_2d_3

*Dummy rolls have been added to the 4- and 5-roll systems to bring them into "line" with the 6-roll system. Since the dummy drafts are valued 1.00, the final results will not be affected for total drafts.

The Draft Limits of the Graph are calculated as follows:

(I) **Break Drafts:**

B = Lower Limit; B′ = Higher Limit of Break Draft Fields.

$B = 3d(Cts) + 3$

$B' = 3.8\sqrt{d(Cts)} + 2.2$

Wherein (Cts) = Sliver or hank counts fed

d = Lead-in draft

The values of (d), as in our example are:

for 4-roll systems d = 1.00 (imaginary)

for 5-roll systems d = 1.10 (actual)

for 6-roll systems d = 1.26 (actual)

(II) **Total Drafts:**

T = Lower Limit; T′ = Higher Limit of Total Draft Fields.

$T = d_1C[3(d_1)C(Cts)+3]$

$T' = d_1C(3.8\sqrt{(d'_1)C(Cts)}+2.2)$

Wherein (Cts) = Sliver or hank counts fed

$d_1 = 3d(Cts)+3$

$d' = 3.8\sqrt{d(Cts)}+2.2$

d = 1.00 for lead draft of 4-roll systems

d = 1.10 for lead draft of 5-roll systems

d = 1.26 for lead draft of 6-roll systems

C = 1.025 Product of constant drafts of 4-roll system

C = 1.1275 Product of constant drafts of 5-roll system

C = 1.42 Product of constant drafts of 6-roll system

If grain weight per yard is given, the calculated

$$\text{Sliver or hank counts Cts} = \frac{8.333}{\text{Grs./Yd.}}$$

We know that the point (6,1) is on the curve. Entering this knowledge, we have

$$6 - 1 = (\sqrt{2p})\ (1.00)$$

from which $\sqrt{2p} = 5$. Using this value, we obtain

$$x - 1 = 5\sqrt{y} \text{ or } x = 5\sqrt{y} + 1$$

Now, if $x = d_1$, and $y = Cts_0$, our final equation becomes

$$d_1 = 5\sqrt{Cts_0} + 1 \qquad (1)$$

While the d_1 drafts obtained

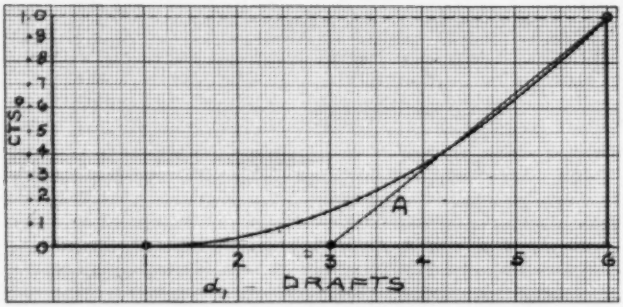


Fig. 2. Plotting of main drafts.

from this formula are quite acceptable from $Cts_0 = .20$ and up, the drafts obtained between $Cts_0 = .10$ to .20 are rather low for modern drafting conception; we suggest to use a compromise line *A* (Fig. 2) which would indicate higher starting drafts.

The new equation for main-drafts d_1 would read, as based on straight line *A*,

$$d_1 = 3(Cts_0) + 3 \qquad (2)$$

Under the paragraph "description of 3-roll drafting" we have seen that Cts_0 is the feed count taken in by middle rolls and may also be expressed as a function of the original feed counts, (Cts), and (d); therefore

$$Cts_0 = (d)\ (Cts)$$

Substitution of this value in formula (2) gives

$$d_1 = 3(d)\ (Cts) + 3 \qquad (3)$$

Since the total draft is the product of (d) (d_1), we have

$$\text{Total draft} = d\ [3(d)\ (Cts) + 3]$$

The permissible total drafts for the 3-roll system according to the foregoing relationship are, to mention a few, shown in the accompanying box.

These drafts, when connected with 4, 5, and 6 rolls are then called break drafts.

Multi-Draft Systems. Designated as such are the introduced four, five, and six-roll systems (see Fig. 1).

Common to all three is a middle field, a quasi neutral zone which divides the two sections into break draft and front draft sections. The draft in the middle field is barely enough to keep the break-draft-delivered sliver from sagging before being taken in by front roll section. All of them have two adjustable draft fields, each preceded (in some cases imaginary) by a constant lead-in draft.

Thus, keeping in mind the functions of the 3-roll system, each compound system may be regarded as consisting of two 3-roll systems in succession.

In order to make the final formulation general, dummy sets of rolls can be added to the four and five roll systems, making them resemble the 6-roll or double 3-roll arrangement. This is demonstrated in Fig. 1; dummy rolls appear darker. Formula (4) for total draft can now be developed, if we regard each section as a 3-roll unit.

For break draft we have, as already explained

$$B = (d)\ (d_1) = d\ [3(d)\ (Cts) + 3]$$

Next comes the middle field draft, being a separate draft unit, simply expressed as (d_2). Since d_2 does represent a value, even if very little over 1.00, this value must be recognized and may be regarded as a supplementary lead-in draft to d_3, leading to final front draft.

The count delivered by break draft section is

$$(d)\ (d_1)\ (Cts) = Cts_2$$

This delivered count becomes the feed count of the front roll section, which, including the middle field draft, has the following draft:

$$F = d_2 d_3 d_4$$

where d_2 and d_3 are constant drafts, but d_4, like d_1, may be expressed in terms of lead-in drafts d_3 and d_4, and feed counts, Cts_2:

$$d_4 = 3(d_3)\ (d_3)\ (Cts_2) + 3$$

Substituting, we obtain

$$F = (d_2)\ (d_3)\ [3(d_3)\ (d_3)\ (Cts_2) + 3]$$

Using the value for Cts_2, we get the front draft as

$$F = (d_2)\ (d_3)\ [3(d_2)(d_3)(d)(d_1)(Cts) + 3]$$

The total draft is T = (B) (F), or, when values of *B* and *F* are entered,

$$T = (dd_1d_2d_3)\ (3dd_1d_2d_3Cts + 3)$$

Now, let C = product of constant drafts, such that

C = (d) (d_2) (d_3), which gives

$$T = d_1C\ [3d_1C(Cts) + 3]$$

Summary. The whole multi-draft situation condenses now to a few questions as follows:

(a) What is the "permissible" total draft for a multi-draft arrangement if feeding count, Cts, is given?

(b) What relative break draft would be correct for the calculated permissible total draft?

(c) What relative break draft would be correct at *any* given total draft, T", (within reason) below or above permissible draft?

Solution

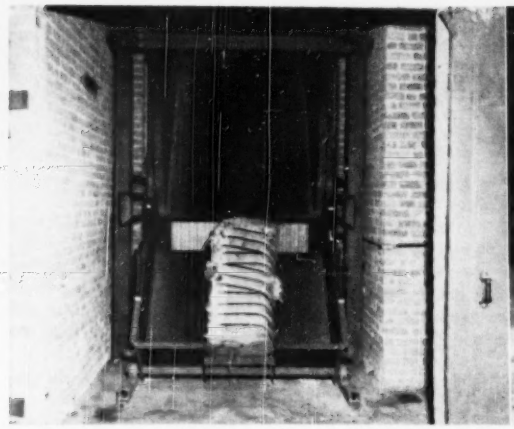
(a) 1. Multiply all present constant drafts = C.

2. Calculate second draft ac-

(*Continued on page 283*)

SOME PERMISSIBLE TOTAL DRAFTS FOR 3-ROLL SYSTEMS

Feed Counts	.10	.20	.30	.40	.50
at d = 1.05	3.48	3.81	4.15	4.47	4.80
at d = 1.10	3.66	4.03	4.39	4.75	5.11
	.60	.70	.80	.90	1.00
	5.13	5.46	5.80	6.13	6.46
	5.48	5.84	6.20	6.56	6.94



Lift bucket at first floor level in position to receive bale. Entrance to conveyor is located in wool storehouse. The brick enclosure is of fire resistant construction and is two feet wider than frame at each end to permit access.

Conveyor bucket inverts at fifth floor level, causing bale to slide into pivoting receptacle. Receptacle pivots forward, placing bale in position for unloading into opener room. The lift bucket returns to first floor level.

Wool Handling Improves with

Five-Story Bale Lift Installation

Staff Prepared

THE FLOW of raw wool from bale to finished product at Alexander Smith and Sons Carpet Company has been dramatically accelerated by a newly installed conveyor. A survey of materials handling requirements made by Harry E. Stocker Associates for the floor covering firm revealed bottlenecks in the transit of compressed bales of wool from storage to opener units.

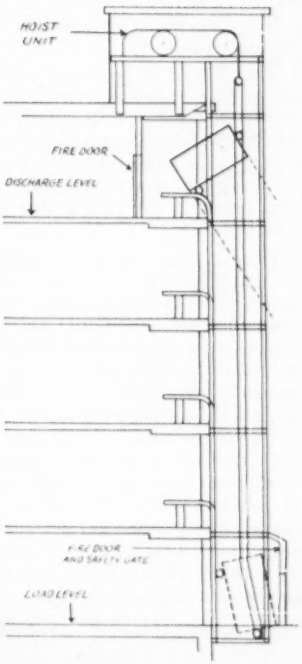
A unique intermittent bale conveyor was designed, and then custom built by the Gifford Woods Company. Constructed at a cost of nearly $20,000, the conveyor is so effective that storehouse crews remain the same size despite a recent 25 per cent increase in the mill's wool handling activity.

The conveyor can handle as much as 15 bales an hour augmented with lift trucks at both terminals. A short term amortization is anticipated by the management which visualizes sizeable reductions in handling costs as a result of the installation.

Extending from the first floor of the storehouse to the sorting section of the opener room on the fifth floor, a fire-proof brick shaft encloses the vertical lift system. Minimum three-hour, fire resistant sliding doors at the two levels serve to prevent the spread of fire, should one occur.

The main element of the conveyor is a lift bucket which operates similar to an elevator, but which automatically tilts to unload its bale cargo. Bales are discharged directly into a pivoting receptacle to facilitate final removal from the conveyor system. Bales varying in weight from 300 to 1500 pounds, and in size from 8 to 35 cubic feet, are within the capacity of the hoist. The conveyor will not function unless the first floor door is closed, although the fifth floor door may remain open throughout the operating cycle.

Switches permitting "Stop" and



Line drawing showing pivoting arrangement for bale receptacle.

"Up" control are manually operated from the first floor. Identical controls are found on the fifth floor panel in addition to the "Down" switch which can be regulated only from this station.

The cycle begins when a lift truck drops a bale into the conveyor bucket on the first floor level. The truck operator dismounts, closes the sliding door, presses the "Up" button, and sends the bale on its way to the opener room. The rising bucket pivots on the fifth floor, causing its cargo to be ejected into a counterpoised receptacle. The receptacle moves forward into an unloading position due to a center of gravity change effected by the heavy bale.

When the bale is withdrawn from the receptacle by the opener room crew, the "Down" button is pressed, thereby reversing the travel of the bucket. However, the counterpoised receptacle is brought back into its original loading position by a system of rollers and levers acting as cams and followers.

Formerly, bales were transported from the wool storehouse to the fifth floor by hand trucks riding in over-burdened elevators. Congestion in the elevators is now relieved, permitting greater economy in use, and yielding vital space for the movement of other essential material.

The carpet company, among the first in the industry to utilize this type lift, is developing further improved controls, job load assignments, stock flow, and equipment modification so that the ultimate benefits of the bale conveyor can be achieved.

Fiberglas Screen Print Drapery Fabrics

Owens-Corning Fiberglas Corporation advises it has solved the problem of printing on glass with the development of Fiberglas screen print drapery fabrics, which will be available in quantity to decorators this fall.

The method of screen printing Coronized Fiberglas fabrics is known as the Hycar-Quilon method. This process of screen printing parallels the water-disperson type resin-pigment systems now in common usage on cottons, rayons, nylons and others.

Fiberglas fabrics are prepared for printing in the Coronizing department of Owens-Corning. The fabric is subjected to the 1,200 degree heat treatment which renders its fibers soft and pliable and permanently sets the crimp which gives it its wrinkle-resistance. At this point the fabric is given a very light coating of a catonic agent which serves as a lubricant and protective agent for the bare glass fabric during subsequent operations and which further prepares the surface of the fabric for acceptance of the printing paste.

The goods are then ready for printing on a standard printing table and with standard screens. The paste is a latex water dispersion which has the consistency of normal, workable pastes to which printers are accustomed. After printing, the goods require a 300 degree Fahrenheit cure followed by a 15-second immersion and padding in a Quilon solution and a final drying at 250 F. To further enhance the hand of the fabric and entirely eliminate creasemarking, a soap scour in a dye beck or opensoaper is recommended.

The fabric is launderable, having the fastness of a vat-dyed cotton. Light fastness varies with the pigment, but by careful selection the rating may be kept close to the 100-hour mark. As to fire proofness, where a two-second flame is permitted, the fabric does not sustain the flame.

Mills Need Ginning Data

Need has been cited for knowledge by the cotton mills concerning by the cotton mills concerning how much the stock has been worked by the gin before the mill runs it. With such knowledge the textile plant could adjust its processing accordingly.

Nomogram ➡

Starch Calculations Made Easy

This nomogram serves as a convenient means for determining:

1. Ounces of starch per gallon of finished mix when the total pounds of starch in the mix and total gallons of finished mix are known;

2. Total pounds of starch required for a given mix when the starch concentration (in ounces per gallon) and total gallons of the finished mix are known;

3. Gallons of finished mix when the total pounds of starch and starch concentration (in ounces per gallon) are known.

In other words, if any two quantities are known, the third may be quickly found by simply laying a straightedge across the appropriate points on the two scales corresponding to known quantities and reading the answer on the third scale.

Examples of the use of this nomogram are as follows:

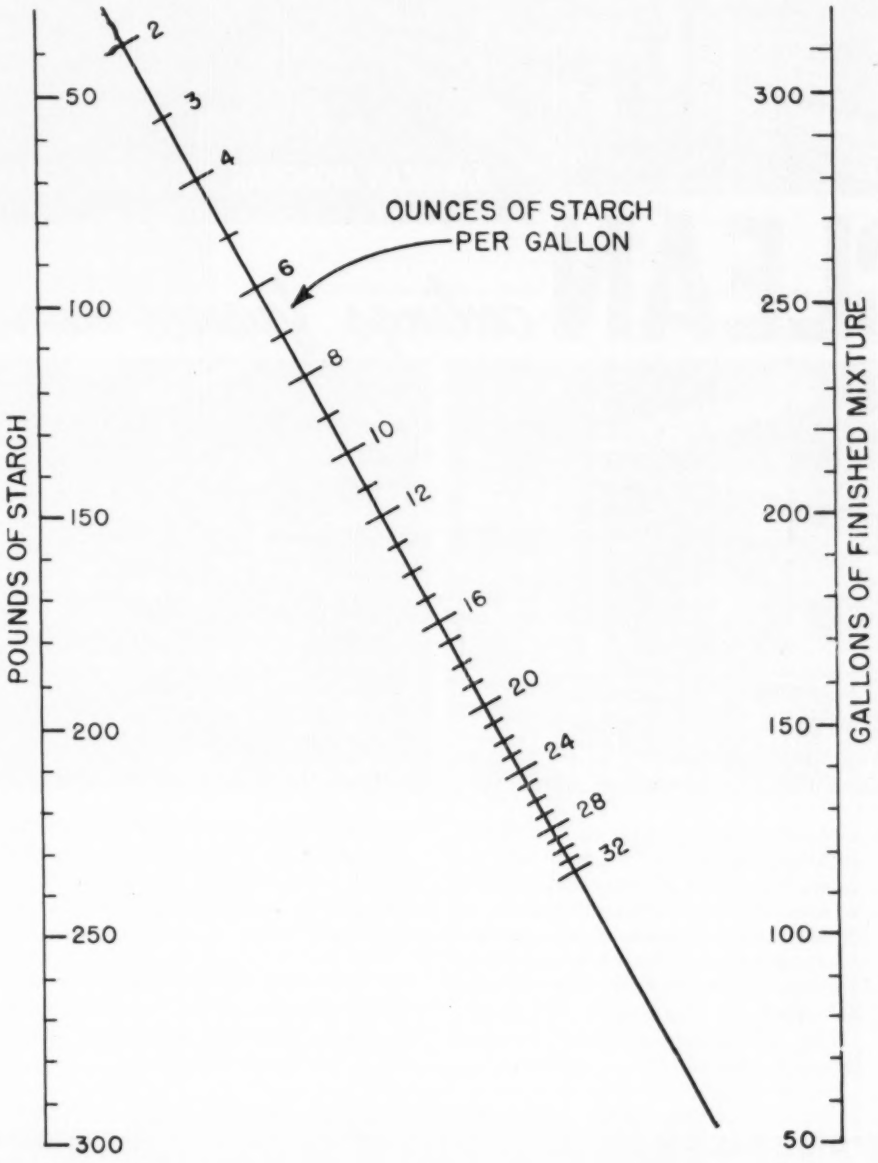
Assume that 120 pounds of starch are being used for 160 gallons of finished mix. To find the ounces of starch per finished gallon of mix, lay a straightedge on 120 on the left scale and 160 on the right scale; read the answer on the center scale—12 ounces per gallon.

To determine the pounds of starch required to obtain a concentration of 14 ounces of starch per gallon when finishing at 240 gallons, lay a straightedge on 14 on the center scale and 240 on the right scale; read the answer on the left scale—210 pounds.

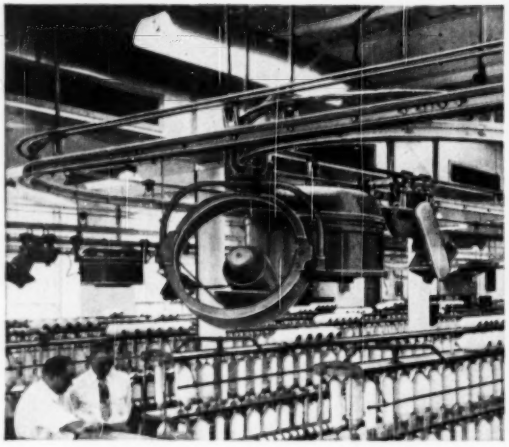
Assume that it is desired to prepare a mix containing the entire contents of a 100-pound bag of starch, and that the concentration desired is 16 ounces of starch per gallon. To find the number of gallons of the finished mix, lay a straightedge on 100 on the left scale and 16 on the center scale; read the answer on the right scale —100 gallons of finished mix.

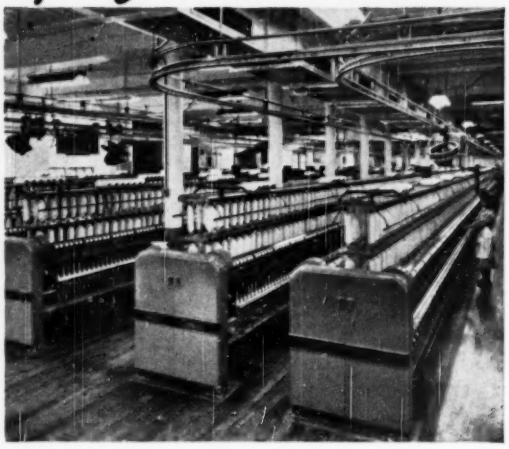
Nomogram prepared by Paul V. Seydel, director of research, Seydel-Woolley & Co.

STARCH MIXTURE CALCULATIONS



CLEAN *ceilings.. frames.. monitors*





● Lint cannot accumulate on the ceiling, spinning frames or in the monitor because travelling blowers, self-propelled around a loop of MonoRail track, set up cyclonic currents of air directed down and around the machines and up and against the ceiling. Manual labor for overhead cleaning is eliminated. Other advantages are:-Lint removed before it accumulates... machines operate full time..smoother running work ...clean rooms that improve employee moral... reduction in accidents...dead air pockets broken up... fire hazards reduced.

An American MonoRail engineer will gladly explain all the advantages of American MonoRail Automatic Cleaning at your convenience.

THE AMERICAN MONORAIL COMPANY

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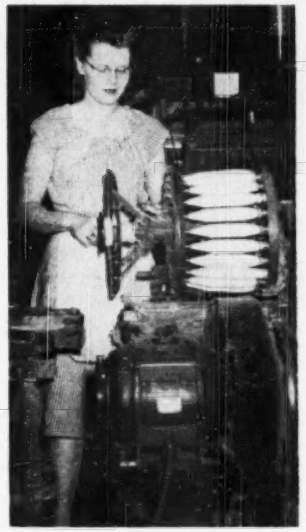

Battery Fillers Are Important People!

By WILMER WESTBROOK

EXCLUSIVE

Competent, well-trained battery fillers are valuable employees who play a vital role in maintaining quality and production.

ONE of the simplest operations in a weave room equipped with automatic looms is filling batteries. Anyone can learn all there is to know about battery filling in a few minutes, but it takes several weeks to become proficient in performing the job. Tests have proved in some instances that women perform better than men on jobs requiring dexterous and repetitive motions of the hands, and for this reason women are employed almost exclusively to fill batteries in some mills.

Many supervisors take time to show a learner only the barest essentials and then leave her with an experienced operative for several weeks. Oftentimes, the supervisor does not check the learner's progress until he is ready to place her on a job. In the meantime, the learner has probably acquired some "short cuts" or habits that are not in keeping with good practices in weaving.

A supervisor should show the learner every phase of the operation and then watch her to be sure that she is following instructions. Care should be taken to place her with an experienced operative who has good work habits, and the supervisor should check periodically to see that the operative is making satisfactory progress. Faulty practices should be corrected when they develop.

Good Posture Needed. The first thing a battery filler should learn is correct posture. Some operatives stand directly in front of the hopper and lean far to the right when winding the ends of filling around the thread holder. Instead of leaning, others sway first to the left, then to the right, placing all the weight first on one foot, then on the other. Both of these practices are tiring, and a tired operator is a careless operator.

By standing near the outer edge of the battery, and with the right side turned in at a slight angle, the left hand can be utilized to place the bobbin in the hopper, and the thread holder is in easy reach of the right hand without having to move the body at all. The feet should be placed slightly apart and the weight of the body equally distributed on both feet. Comfortable low-heel shoes should be worn.

In filling the battery, each bobbin should be held lightly in the left hand. With the forefinger and thumb of the right hand the two ends of the filling are grasped and unwound until one of the ends is covered by succeeding layers of filling. This end is then broken off. The other end of filling should be unwound for about thirty inches. The bobbin is placed in the bobbin disk with the left hand, and the end is pressed in the small disk. Using the right hand, the filling is placed over the thread guide, and at least two turns are wrapped around the thread holder before breaking the end off.

Prevents Sloughs. When filling is pulled from the bobbin, it should be stopped at the round nearest the nose instead of high up on the shoulder of the build. This reduces the chances of the end becoming slack or pulling filling off another layer when the bobbin is transferred, thereby causing ropey or sloughed-off filling. When passing the filling over the thread guide, the end should not be placed in the notch directly opposite the bobbin, but it should be carried to the next notch below this point. When the bobbin is under the transferrer, the end will be held up where it cannot be

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I ADAPT MYSELF TO ANY SHAFT
MY OIL-CIRCULATING SYSTEM IS BUILT IN
I PUMP AND CIRCULATE THE OIL I NEED
I FILTER AND STORE THE OIL I NEED
I REDUCE "FLASH" FIRES IN TREADLE ROLLS
MY OIL IS RENEWED BY "HYPO" INJECTION

NEXT MONTH at Atlantic City the great and growing textile industry stages its National Show, to present the latest and best in processes and equipment.

Illustrated here are six ball bearings, typical of the many originated and developed by New Departure. They will be on display at the New Departure exhibit where visiting designers and engineers customarily spend much of their time.

And no wonder! For most of the advances in ball bearing design for textile machinery these last ten years came from New Departure. Engineering literature, descriptive of them, will be mailed promptly to requests on business letterheads.

Nothing Rolls Like a Ball... **NEW DEPARTURE BALL BEARINGS** 93

NEW DEPARTURE • DIVISION OF GENERAL MOTORS • BRISTOL, CONNECTICUT

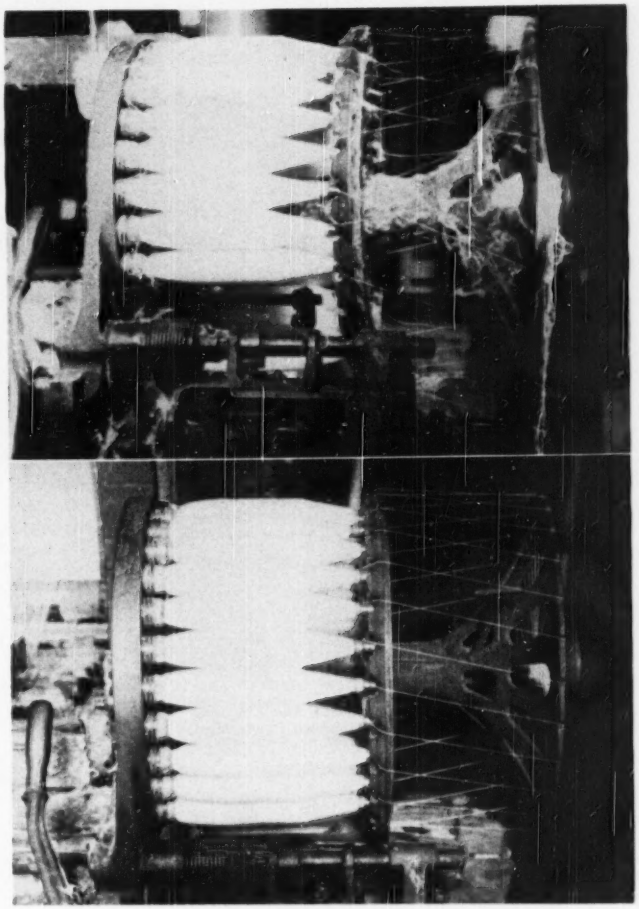
easily broken by the fay or picker.

Piece Work Pay. Correctly filled batteries are essential if quality cloth is to be woven. If a weaver fills his batteries in addition to running the looms, he will naturally see that the bobbins are put in so that the looms will operate with a minimum of stoppage due to broken filling. A battery filler, unless paid by the pick or piece, may develop habits which may save time for her but will make the job harder for the weaver. The higher the percentage of production, the more bobbins of filling will be used, and this of course makes the battery filler's job harder. It is better to place the battery filler on a piecework basis, where practicable, to adequately regulate compensation for increased work and to encourage her to help the weaver keep his looms running.

Bad Practices. Among the harmful "short cuts" often used are: failure to pull all loose ends from bobbin; leaving a loose layer of filling on the shoulder or near the nose of the bobbin; passing the end over the wrong notch of the thread guide; not pulling the thread tightly across the guide; not wrapping the thread around the holder a sufficient number of times to hold it firmly; and failure to break all loose threads from the thread holder.

There is a wide range in the capabilities of different persons, and this is particularly noticeable among battery fillers. One operator may be fast enough to leave her job to sit and rest; another operator on an identical job may constantly need help to keep the batteries partially filled.

A battery should not be allowed to become more than half empty before refilling because extra work is required to place the bobbins in the clips, and sometimes the hold-back pawl must be raised and the battery turned backward. If this is done while the loom is running, a serious accident may occur, inflicting injury to the battery filler or damage to the loom.



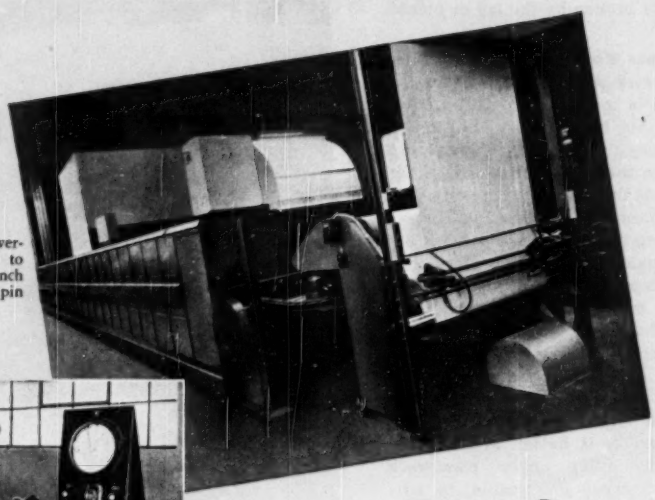
Top, poor battery filling like this causes loss of production and a high percentage of seconds. Bottom, a clean well-filled battery is essential to good results in the weave room.

Job Loads. To determine what constitutes a full job for the average battery filler, several factors must be taken into consideration. The counts of filling, number of yards per bobbin, width of the cloth, speed of the loom, the percentage of partially used bobbins that are ejected by the loom, the distance from the filling container to the loom, the distance to be covered crossing aisles, and any other local obstacle which may interfere with the operation.

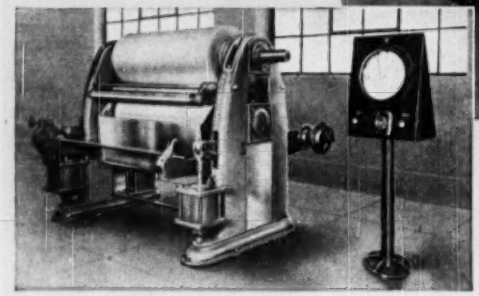
In one mill, six hundred bobbins per hour is an adequate load for a battery filler. In figuring the load on a new job, a stop watch should be used to time the operation. Care should be taken to use full bobbins of average size.

In making the calculations, the average running time of one bobbin is multiplied by 10. This gives the number of batteries an operator can keep filled on that particular style of goods. For instance, if a bobbin runs four minutes, 40 batteries should be a full job, but if the average running time is 4.2 minutes, the job should be increased to 42 batteries.

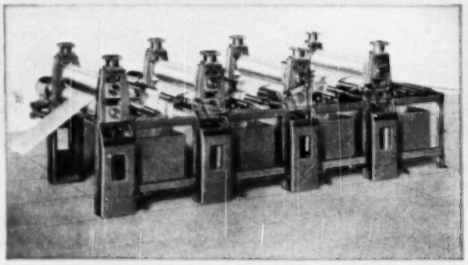
The foregoing calculations were made on a basis of 100% production. The percentage of time the loom is stopped gives the operator additional time to rest, use partially filled bobbins, or clean the thread holders. The figures should not be used in a hard and fast



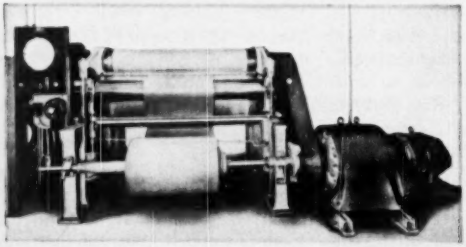
Butterworth Ripple-Flo Tenter. Overfeed accurately controlled from 0 to 25%. Selvage tolerance of 1/16-inch (plus or minus) in relation to the pin line.



Butterworth "Bullet" Padder. Rolls are interchangeable. Compact in design. Extremely functional in operation.



Butterworth Compartment Washer. Unit type construction. Can be furnished in any multiples of compartments.



Butterworth 2-Roll Embossing Calender. Designed for embossing artificial leather and unsupported film.

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You'll see these outstanding Butterworth Machines at the American Textile Machinery Exhibition, May 8-15, at Convention Hall in Atlantic City.

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BUTTERWORTH

rule. All pertinent factors should be considered when laying out a job.

Uniform Package Size Helps. After a certain number of batteries have been designated per job, it is up to the spinning department to make all bobbins as nearly the same size as possible. Any reduction in the size of the package or "short doffing" (doffing from the frame before the quill becomes full) will result in extra work for the battery filler. An excessive number of backwinds, especially if placed around the steel rings on the butt of the bobbin, will tend to slow the process of battery filling.

After learning the rudiments of the job, many operators learn time-saving habits which are very helpful. For instance, some are able to grasp several bobbins in the left hand and place them in the battery with a minimum of effort, at the same time passing several ends over the thread guide and wrapping them around the holder with a single motion. This is a considerable saving of motion but requires extensive practice. Another way of saving motion is to lay the ends over the thread holder until the battery is completely filled and then take the accumulated ends and wrap them around the holder. This saves motion but is hard on the hands, especially when using heavy filing.

Most battery fillers soon learn that they can save a lot of steps by keeping the batteries from one-half to two-thirds full. Of course, they should fill each one completely, but if they get almost half empty before refilling, less walking will be required than would be the case if only a few bobbins were used from each battery before refilling.

The supervisor should watch for and encourage any practices which may boost the efficiency of his battery fillers, and he should consistently be on the lookout for any bad work habits. Both quality and production depend upon the manner in which the batteries are filled.

Ten Pointers on Battery Filling

1. **Filling automatic loom batteries calls for a skilled operative.**
2. **Quality and production depend upon good bobbin magazine practices.**
3. **Training battery fillers helps insure good weave room efficiency.**
4. **Manual dexterity is an important essential.**
5. **Constant supervision of the learner is fundamental.**
6. **Development of harmful short cuts should be arrested in the earliest stages of training.**
7. **Faulty posture and carelessness may be closely related.**
8. **Wearing apparel should conform with the requirements of the job.**
9. **A work load should be established for the job classification.**
10. **Progress can be measured by comparing trainee performance with a standard work load.**

Suggestions for Nailing Hard Maple Flooring

All too often, insufficient attention is given to proper nailing of tongued and grooved hardwood floorings. With improper nailing there is every chance that some tongue splitting will result.

When this happens, squeaks or creaks are apt to develop, due to the flooring strips failing to hold down and together as tightly as they should, according to a statement from the public information department of the Maple Flooring Manufacturers Association.

There are several types of good flooring nails on the market, but trouble will be encountered with all of them if the technique of proper nailing is not mastered, the organization warns.

The position of the nail point and the angle of the nail are all important. For effective results, nails should be driven at an angle of 45 to 55 degrees, and the first nail or two driven into the strip of flooring should be "toe-nailed" toward the preceding strip to which it joins. This procedure makes tight end joints. Use heavy flooring hammer and set nails, breaking joints as the flooring is laid.

The spiral type of floor screw is gaining in popularity in many sections of the country, especially when used in laying northern hard maple flooring. It drives like any other type of nail, but turns and holds like screws. Experienced floor-layers using the spiral floor screw, report little or no tongue splitting, bending or waste. The recommended nail specification is presented below:

For 3/8-inch flooring—4-penny cut steel flooring nails or 1½ No. 1 spiral floor screws, driven 9 inches apart.

For 25/32-inch flooring—Use 6, not over 7-penny cut steel flooring nails or 2¼ and 2½ No. 5 spiral floor screws, driven not over 16 inches apart.

For 33/32-inch flooring—Use not over 7-penny cut steel flooring nails or 2¼ and 2½ No. 5 spiral floor screws, driven 12 or 16 inches apart.

Wire casing nails may be used where cut steel or spiral floor screws are not obtainable. Use only non-splitting type wire nails, and nail to each support bearing (joist or sleeper).

PACIFIC MILLS boosts production
THE TRAMRAIL WAY

WEAVE ROOM

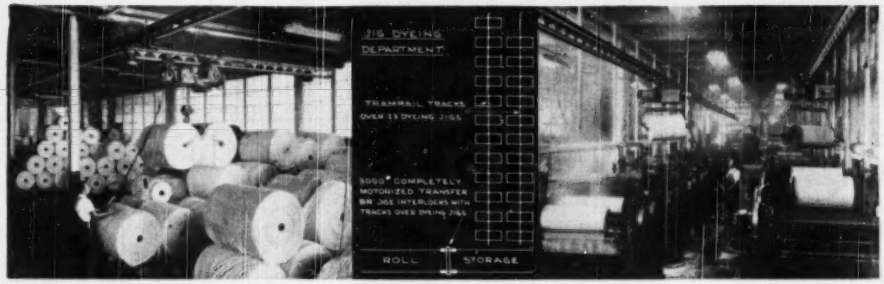
Five crane runways with two 2000 lb. manually-operated cranes on each, serve this large weave room. Note the ease with which the beams, weighing up to 1300 lbs., can be handled and how closely spaced the looms are.

More and more Cleveland Tramrail equipment is being installed in the large textile mills of Pacific Mills, Inc., whose fine nationally-advertised Pacific Sheets are well known throughout America. The Tramrail equipment is saving time, speeding production, improving safety and aiding in bringing about orderliness and plant efficiency.

Of importance, new installations of Cleveland Tramrail equipment are greeted enthusiastically by the employees because they find it lightens their work tremendously, is easy to operate and reduces accidents drastically.

A leader in the application of modern machinery and methods in textile manufacture, Pacific Mills was among the first to introduce the use of overhead materials handling equipment in weave rooms. Especially interesting are the two large rooms at their Lyman, S. C. mill, where there are approximately 700 looms of 50 inch to 100 inch size for sheeting. Because the beams, weighing up to 1300 lbs., are transported overhead, the looms can be located closer together and more machines installed in a room than would otherwise be possible. The overhead hoists make it easy for the operators to place the beams in or remove them from the looms.

The advantages secured from one application of Tramrail equipment suggests other places where it might be used profitably, and so at the Pacific Mills, Cleveland Tramrail will be found in the calender room, dyeing department, cloth room, storage areas and elsewhere.

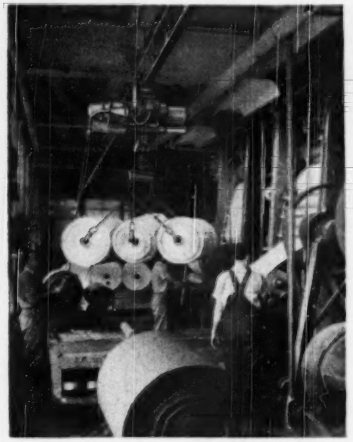

JIG DYEING DEPARTMENT
TRAMRAIL TRACKS OVER 23 DYEING JIGS
5000# COMPLETELY MOTORIZED TRANSFER BRIDGE INTERLOCKS WITH TRACKS OVER DYEING JIGS
ROLL STORAGE

ROLL STORAGE

This completely motorized transfer bridge interlocks with the two tramrail tracks in the Jig Dyeing Department, enabling direct delivery from Roll Storage to Dyeing Jigs. Formerly the larger rolls in foreground, which weigh 400 lbs., could be piled only two high. With the Tramrail bridge it is no problem to pile them three high, which is all the overhead clearance here permits, and thereby the storage capacity is increased by 50%.

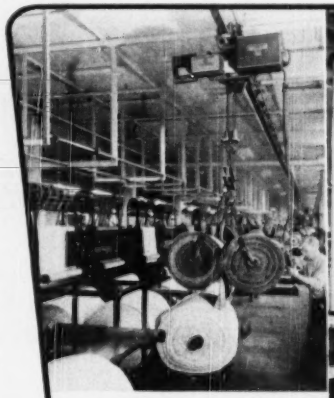
DYEING DEPARTMENT

A quarter of a million yards of cloth are run through the 23 dyeing jigs in this department every week. The motor-driven carrier with electric hoist picks up the rolls in storage, delivers them to the jigs and sets them in place.



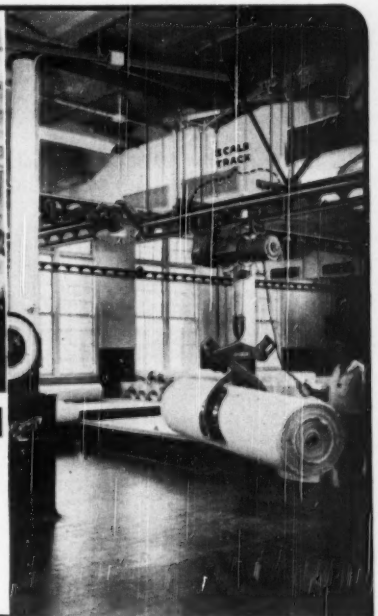
CALENDER ROOM

The overhead Tramrail system makes handling of rolls to the calenders easy and efficient. Usually three rolls are handled at a time with this 2000 lb. carrier which is equipped with electric drive for both hoist and travel.



INSPECTION AND BOLTING

Two or three rolls of cloth are delivered at a time to the folding machines with an electric hoist carrier and placed into position by one man.



WEIGHING

Rolls from inspection machines are quickly and accurately weighed by running carrier onto the scale track section which is connected to a floor scale by lever arrangement.

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BOOKLET No. 2008. Packed with valuable information. Profusely illustrated. Write for free copy

CLEVELAND TRAMRAIL DIVISION
THE CLEVELAND CRANE & ENGINEERING CO.
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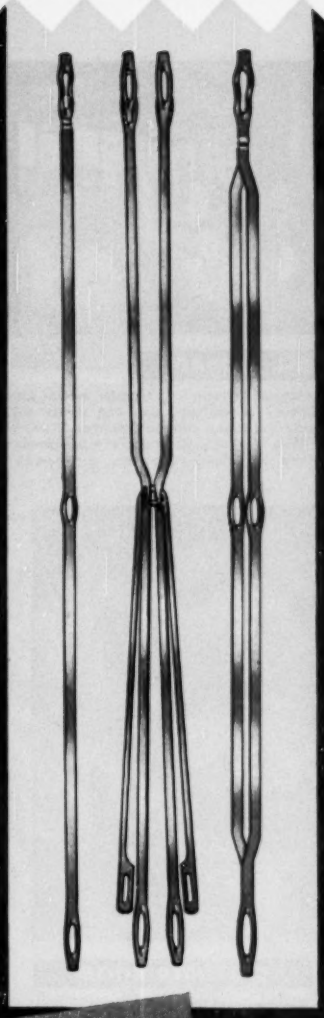
CLEVELAND TRAMRAIL
OVERHEAD MATERIALS HANDLING EQUIPMENT

WHERE WARP YARN MEETS METAL
MAKE SURE IT MEETS
Ste-hed-co



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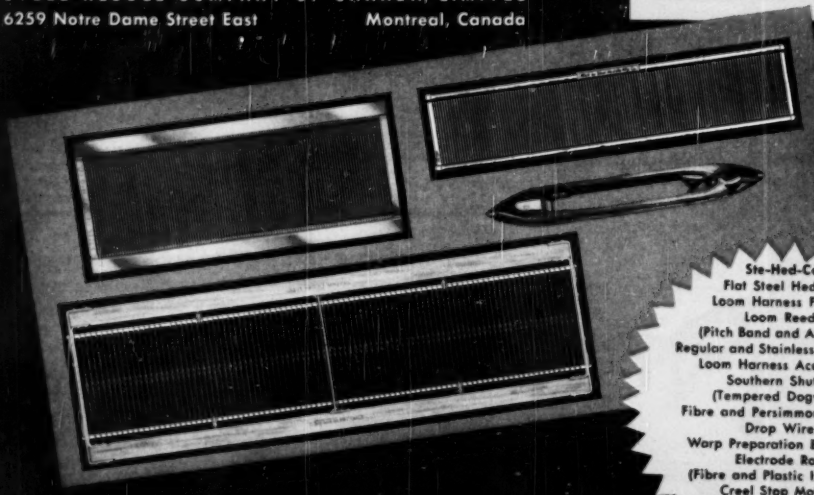

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Loom Harness Frames
Loom Reeds
(Pitch Band and All Metal, Regular and Stainless Steel Wire)
Loom Harness Accessories
Southern Shuttles
(Tempered Dogwood, Fibre and Persimmon Covered)
Drop Wires
Warp Preparation Equipment
Electrode Rods
(Fibre and Plastic Insulation)
Creel Stop Motions
Hard Chrome Plated Parts

Front covers of the publication are attractively designed and have a motive in keeping with the season of the year.

The Employee Publication

—an aid to good community relations

By ALBERT CARRIERE
Public Relations Director
C. H. Masland & Sons

EXCLUSIVE

PUBLIC RELATIONS is an eternal project which requires a fundamental honesty of purpose to achieve. The work is specialized and must be entrusted only to a competent specialist.—The Author.

WITH FEW exceptions, business has not been intelligently concerned about community relations until recently. Past attitudes could be summed up as follows:

"We are the ABC Mill. We provide employment for 3500 people in this town. We do our work and mind our own business. We pay taxes which help the town. What's more, every year we make substantial contributions to local charities.

"We don't need this community. It is this community that needs us."

While this attitude was prevalent, it fostered resentment and suspicion of business. It also resulted in rumor mongering, whose resultant inaccuracies can do far more mischief than the simple truth.

Fortunately, this short sighted attitude is on its way out, and business today is genuinely aware that it has a civic as well as an economic responsibility to the community in which it is located.

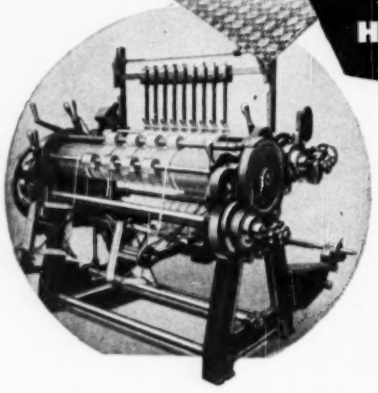
Situation Changes. One morning, American business awoke with a terrific headache, caused by the accumulated distrust, suspicion and downright dislike which in turn were caused by the failure of business to take an aspirin the night before. By taking an aspirin, I mean shaking the traditional cob-webs out of its brain, letting people know the facts of business, and convincing this nation that industry was indispensable to our American way of life.

When the patient did take this bromide of good public relations, he took an over-dose. The results were ludicrous. Instead of realizing that public relations is something that is always with us, the well-intentioned patient decided on a one-shot campaign. Instead of using a rapier, he used a bludgeon, and the resultant screams of agony, the full-page protestations of virtue, and the expensive booklets, in four colors, did more harm than good.

Then came a more sober dawn. Business corporations realized three things. The first—*to achieve good public relations, you have to have a fundamental honesty of purpose.* In short, you have to mean it.

The second thing business had to admit, grudgingly at first, was that *public relations was an eternal thing.* You could not begin a program just to get you out of a jam with the unions, or the government, or the public. You had to develop an intelligent and long-range program, and then you had to keep at it everlastingly. To twist a famous phrase, eternal

HOW TO SLIT A ROLL OF *Lace*



CAMACHINE S-27 Doupe Cutter slits and rewinds lace into clean, compact rolls of various widths and up to 14" diameter. This machine features flexible mounted self-guiding cutters which automatically follow the doupe through the full length of the web. Complete information on request.

THE RECENT REVIVAL of lace in fashions brought that question up again. It sent our engineers back twenty-five years to look over blue prints and specifications on the job-proved CAMACHINE S-27 lace slitter-rewinder. Cameron had the right answer.

We appreciate the confidence of textile men who call on Cameron for advice regarding a great variety of old and new slitting and roll-winding problems. Sometimes they call for entirely new engineering. Most often they call for a machine that Cameron has already built, for there are few slitting and roll-winding jobs in industry that have not been served successfully by CAMACHINES.

In almost every case Cameron will be able to promptly provide the right answers and the right equipment.

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. . . the world over

AA-210

"The publication should be interesting, not only to your associates, but also to their wives and children."

vigilance is the price of sound public relations.

The third fact realized by our patient is that *this type of work involved specialization.* You cannot entrust it to an office boy with a knack for writing, to a comptroller with time on his hands, to a twelfth vice-president who loves people—indeed, to any one in your organization who is not qualified by temperament, training, background and interest.

In short, a sound public relations program demands a competent specialist; a combination business man-artist. And believe me, the best men in the work are exactly that: business men-artists.

Community Relations. Now we get down to the problem of a community relations program, which is simply a phase of public relations. In this instance your public consists of the community in which you live. Let us say that a particular company has not enjoyed a savory reputation in town because of its policy of concealment and aloofness. Let us further assume that this company has even made enemies because of its feeling that the community needed it much more than it needed the community.

Now, gentle reader, you have a perfect right to roll up this magazine and crack me on the noggin. You have a perfect right to ask in righteous and indignant tones, "Look here! are you naive enough to suggest that a puny little industrial publication will make any difference?" I can only say, "Yes!"

It has been done, not only in one community but in many. Here's how. First, of course, you must have a publication. Whether it's a newspaper or magazine, whether it's large or small—that's up to you.

Organizing Publication. You, as management, must understand one thing: Any industrial publication is meant to serve as a two-way medium of communication, as a clearing house of ideas. Its primary purpose is to bring labor and management closer together, and create understanding. Anything else, including the use of the publication to create good community relations, is secondary.

The next thing to do is to hire a competent editor. If possible, select him from within your organization. Doing this will avoid the onerous task with which every newcomer in an organization is confronted; that of overcoming prejudice against an outsider. Regardless of whom you hire, make sure that your associates understand exactly what his function is.

After this, make sure that every one concerned, management, employees, including foremen and supervisors, and the folks in your community have an adequate understanding of the primary objective of your employee publication. Let them know that it is to serve as a two-way clearing house of ideas; the medium through which management can communicate with its employees, and a means through which employees can also communicate with management.

So we have a newspaper or magazine which we mail to the homes of our employees. Why mail it to their homes? Because that's the beginning of good community relations. The magazine or newspaper gets into the hands of housewives and their children. They are a vitally important part of any community.

Circulation Policy. At this point, I would like to make a plea for an interesting publication. It should appeal primarily to your associates, but also have some appeal to their wives and kids. Impossible you say? Impractical? Not at all—you see, *we've done it.* Yes, I've had any number of our

A Five-Point Program for a Successful Employee Publication

1. Hire a competent editor, preferably from within the organization.
2. Acquaint management with functions of the editor.
3. Educate management, employees, and the community in the proposition that an employee publication is a clearing house of ideas.
4. Inject town matter into the publication, articles of community interest, and special editions in connection with civic events.
5. Mailing list should include key members of community; reception offices of professional men; civic institutions; largely patronized commercial establishments such as barber shops, hotels, and beauty parlors.

LOOK TO US FOR THE

Follow the crowd to Booth No. 348AA

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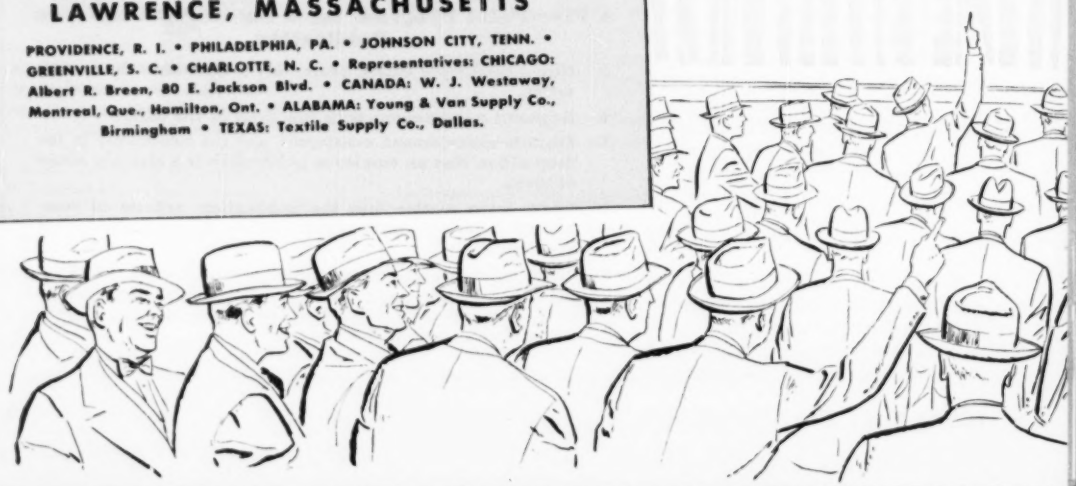

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See ACROPAK BOBBINS, for processing nylon and other high strength synthetics. See how entirely new techniques and new materials have been employed to provide revolutionary lightness, strength, and durability. See why ACROPAK will provide record economy in bobbin costs for processing synthetics.

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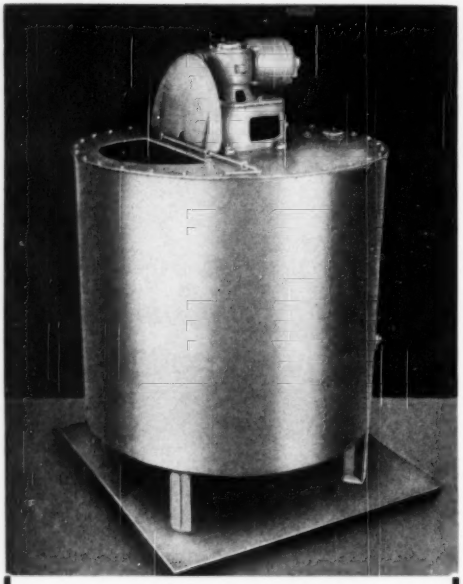

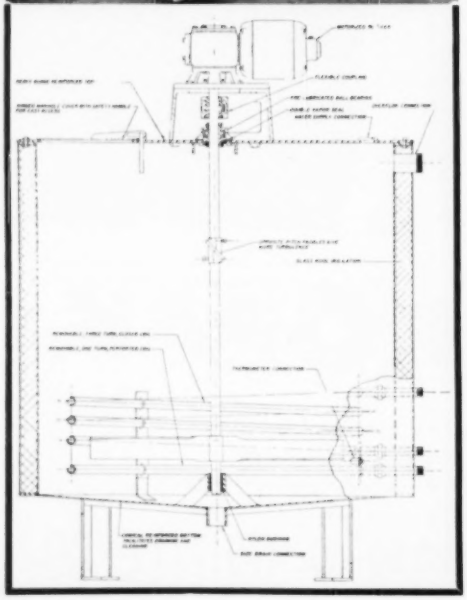

...has solved your Cooking and Storage Kettle Problem!

Shown at left is one of their combination all-stainless-steel kettles that can be used for cooking or storing size.

All internal parts and the main body of these kettles are made from Type 316 Stainless Steel. These kettles are insulated with glass wool, encased with an outside jacket of stainless steel, and driven by a geared motor unit connected by flexible coupling to the stirrer shaft.

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Prices without Obligations

associates tell me how much their families look forward to receiving our magazine. I've even had the wives and children themselves tell me.

An excellent way to get circulation within your plant community is to put all dentists, doctors, lawyers, and ministers on your mailing list. This isn't just a hand-out, mind you. It is simply one method of putting the magazine in a place where it will be seen by folks in the community. Remember? We are working on community relations.

We send two copies of our publication to all doctors, dentists and lawyers with the request that they put an extra copy in the waiting room. You would be surprised at the number of people who have become more tolerant of us because of the facts which they have picked up in "The Shuttle." I know, for they have stopped me on the street, written to me, phoned me at the office or at my home—and TOLD ME SO!

We also send copies of "The Shuttle" to all beauty parlors, barber shops, hotels, school libraries, and public libraries in the surrounding area. Then we have a special mailing list of people who are opinion leaders, the secretary of the chamber of commerce, the superintendent of education, the principal of the local high school, and so on.

Contents. But the work we do in community relations via our magazine is not merely a matter of circulation. We inject a great deal of town matter in our magazine. For example, when we first started printing "The Shuttle," I decided that because Carlisle had many churches we ought to have a write-up of every church in town. I approached every religious leader in town and requested a history of each church, along with a picture of the church and of the minister or priest. This was done on a purely non-sectarian basis, and the reception to this series of articles was, to say the least, gratifying.

After the completion of the church articles, we ran a series on education. One of these was written by the county superintendent of education. Another article described Dickinson College. Still another was written about the "Driver-Training Course" being offered at the Carlisle High School, authored by the teacher in charge.

The editorial content includes many phases of community activity. Items about children stimulate readership among housewives and other persons in the community who do not work in the mill.

Testimonial to the good job being done by "The Shuttle" is shown by this award which appeared in the publication. Sincerity of purpose and interest is an important prerequisite to success.

Our next article of community

interest was about the Carlisle Hospital. This not only gave a history of the institution, but it explained certain hospital policies so that the general public might gain a better understanding of the way the Carlisle Hospital functioned. We also included a section in which we described in detail the badly needed hospital expansion program. In a subsequent issue, we turned to the Carlisle Y.M.C.A. and the needs of our young people.

Carlisle is run by a borough council type of government, so we ran a series of three articles which described this type of government. The author, our assistant editor, was also a member of the borough council, so you may be sure the material was authentic. This series was well received. We were asked to provide the local schools with enough copies for use in their "Civics" and "Problems of American Democracy" classes. When our supply of magazines was exhausted, we gave the schools permission to reprint the articles for use in their class rooms.

Special Projects. At about this time I was told by a teacher that there was very little good teaching material on the functioning of the Pennsylvania state government. So I persuaded the president of our company to let me go

ahead with a special project.

A professor of history at Dick-

inson College, Joseph B. Smith, was commissioned to write five articles on "Undertsanding Our Pennsylvania State Government."

This was not done primarily as a school project. We did it because we felt that such a series would be of interest to our associates. These articles were so well received that we decided to reprint them in a single booklet and make them available to the schools throughout the state. Requests for copies numbered over twenty thousand and they are still coming in!

Our most recent attempt at community relations via "The Shuttle" was a summary of the recommendations made by Clifton E. Rodgers, planning consultant, who had been hired by Carlisle borough council and the Carlisle board of education to make recommendations for the future growth of the town. We made this summary available to the chamber of commerce at cost. We also distributed it to the local service clubs, schools, and colleges.

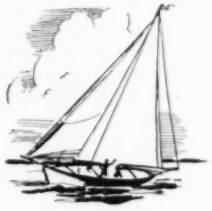
Again in this project our thought was this: to present the facts of town planning to our associates, since they are citizens of Carlisle, and secondly, to present this summary of facts to the town of Carlisle as a public service.

Well, that about sums up the use of our employee magazine in building better community relations. We've had other articles, of course; about the Pennsylvania state police, about the duties and functions of the Carlisle chamber of commerce, a write-up of the history and aims of the various service clubs, the member agencies of the Carlisle Community Chest, and a history of the local volunteer fire companies.

Currently we are working on a series of articles concerning the history of Carlisle and the Cumberland Valley. Carlisle's bi-centennial comes during 1951. We want to be ready with a souvenir booklet to be used during this

celebration. An authority on the subject was commissioned to do a series of five articles for "The Shuttle." We expect to print these first in our employee magazine, as we expect our associates will be interested in an account of the history and growth of this region and town. Then we shall reprint these articles in booklet form, making them available to schools, industries, and the general public.

Improved Relations. Now what about this business of using an industrial publication to create better community relations—does it really help? I think it does. Of course, by itself the use of a magazine isn't enough. You must first have a sincere desire to create and maintain good community relations. You must also be a good citizen, in other words, you must be honestly interested in making your plant community a decent, attractive, and good



good place to live. You must encourage all your associates, from the fellow who sweeps the floor right on up to the president of the company, to take an active part in community affairs.

After all, creating good community relations for a business corporation is more or less like applying the golden rule on a large scale.

Textile Research Conferences

The 1950 Gordon Research Conferences, sponsored by the American Association for the Advancement of Science, will be held during the period June 26 to September 1 at the Colby Junior College, New London, N. H.

That portion of the conference concerned with textiles will begin on July 17 and end on July 21. Chairman of the 1950 Textiles Conference is Earl E. Berkley; Joseph H. Brant is vice-chairman.

The program has been announced as follows:

July 17—B. B. Robinson: Production and Utilization Problems of Long Vegetable Fibers. J. B. Goldberg: The Interpretation and Practical Application of Textile Research.

July 18—W. J. Hamburger: New Scientific and Psychological Methods Applied to the Evaluation of Complex Textile Properties. Games Slayter: New Developments in Glass Fibers and their Fields of Industrial Application.

July 19—J. A. Howsmon: The Fine Structure of Cellulose Fibers. Robert F. Peterson: Methods of Preparing Casein Fibers and their Properties.

July 20—H. J. White, Jr.: Some Physical Chemical Studies on Dyeing. G. R. Seidel: Flame Retarding Cellulosic Materials with Salts of Titanium and Antimony.

July 21—B. L. Browning: Influence of Fiber Characteristics on Paper Making Properties.

Requests for attendance at the conferences should be addressed to W. George Parks, Director, Department of Chemistry, Rhode Island State College, Kingston, R. I.

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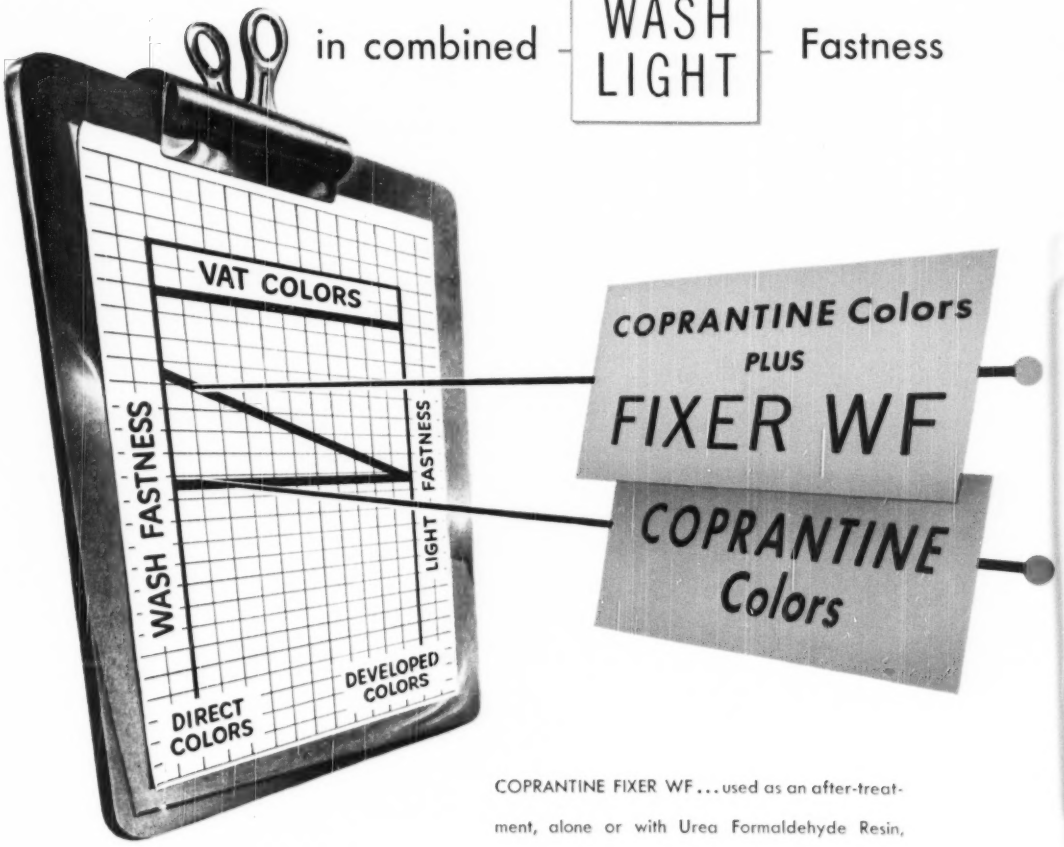

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IN the interests of *better products and lower costs*, you can't afford to miss the Girdler booth at the American Textile Machinery Exhibition in Atlantic City, May 8-12. There, you will learn how the new VOTATOR Warp Size Processing Apparatus is proving to be superior to any other method of warp size manufacture.

You will discover how this closed, continuous processing apparatus assures absolute uniformity of warp size . . . minimizes shedding . . . improves weaving efficiency . . . saves starch, manpower and floor space.

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WARP SIZE PROCESSING APPARATUS

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"one of America's great fine-goods mills"

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"In addition, VOTATOR Processing Apparatus has led to a saving of 10% in starch requirements, reduced steam requirements and has reduced the man-hours necessary for mixing size."

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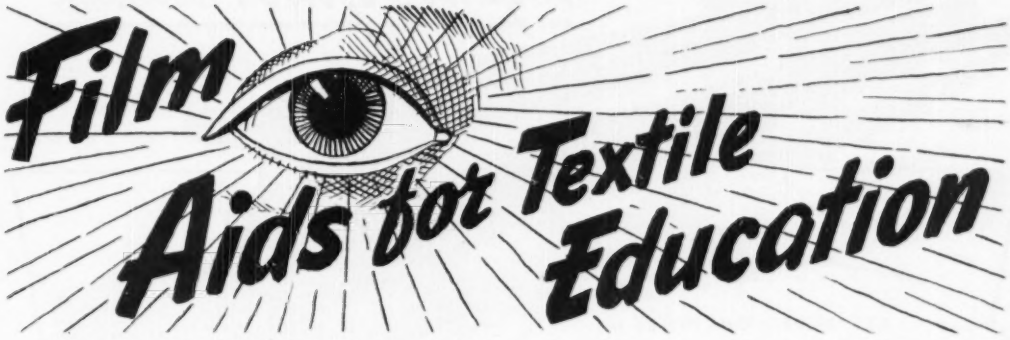

INCREASED demand for effective materials for use in training personnel and individuals in the techniques and processing of textiles has brought forth the need for an additional bibliography on visual aids.

This bibliography may be considered a supplement to the one which appeared in the July 1947 issue of TEXTILE INDUSTRIES (limited number of reprints available on request). The listing is offered as a service to those who recognize the value of pictorial instruction in furthering progress and understanding in the textile industry.

Bibliography of Visual Aids

GENERAL TEXTILES

MOTION PICTURES

Basic Fibers in Cloth
1948 10 min sd $45 (col $90) Coronet
Imparts a knowledge of the major fibers which students can use as a yardstick to measure cloth effectiveness for each home use. The microscope magnifies fibers 100 times to demonstrate their comparative length, strength, absorptive power, elasticity, heat conductivity, cleanliness and washability.

Fabrics With A Future
10 min sd col $75 (rent $2.50) Austr. News
Exhibits new colors and designs in woven fabrics.

Fashions By Canada
1946 10 min sd $25 (rent $1.50) CanNFB
A survey of one of Canada's largest industries—textiles and clothing.

Making Cotton Clothing
1946 11 min sd $45 (rent $4.50) EBF
Tells the story of a child's cotton print dress from the designing of the original to the pressing and packing of hundreds of dozens of garments in a modern mass production garment factory. Hand methods are contrasted with quantity production technique.

New Way To Better Sleep
23 min sd loan Simmons
Describes the benefits and operation of the Simmons electronic blanket.

Textile Worker
4 min sd rent $1.50 Livingston apply
A modern dance performed in the Uzbek (Hindu-Mongolian) folk style by a girl who dances the motions of textile machinery, sewing, weaving, etc.

Textiles
8 min sd $12.50 Filmsets
Shows how silk, wool and cotton fibers are prepared and woven into textiles and then made into garments.

Textiles and Design
1947 11 min sd $16 (col $85) Pictorial
Traces the steps in the production of the papete mats, the sombreros, the colorful rebozos and the serapes worn by the people of Mexico.

Textiles Unlimited
1949 30 min sd col loan GE
Practically every phase of modernization is covered in this dramatic, yet highly factual presentation. Lighting, air conditioning, power distribution, machine drives, quality control . . . Film was made in mills located in every important textile area.

What Is Cloth?
1948 10 min sd $45 (col $90) Coronet
By watching and listening to a mother teach her daughter about cloth, students learn the practical facts about fibers, yarns and weaves.

Yarn and Cloth Construction
1948 10 min sd $45 (col $90) Coronet
Brings the carding board, the spinning wheel and the hand loom right into the class-room to demonstrate the processes of converting raw fibers into woven cloth. High magnification photography of each process.

FILM STRIPS

Clothing and Textiles
1947 si 50 fr with Guide $2.95 InfClassrm
Illustrates the story of clothing and textiles from earliest time. The

(Continued on page 195)

Most of the items listed in this bibliography appear in the Educational Film Guide and the Filmstrip Guide, both being publications of the H. W. Wilson Company, 950 University Ave., New York City. The annotations in most instances are quoted directly from the forementioned sources.

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The BARBER-COLMAN System of SPOOLING and QUILLING Offers Interesting Opportunities

The new Barber-Colman Automatic Quiller provides the weavers of quality goods with equipment that can help to produce better products. The advantages of the Barber-Colman System of Spooling and Quilling are (1) extra high speed, (2) thorough cleaning, (3) maximum retention of yarn quality, and (4) automatic machine operation. The Spooler winds cheeses from the spinning bobbins at 1200 yards per minute, and automatically removes all gouts, slubs, and other imperfections. The Quiller is magazine fed, winds overend from the cheeses of spun yarn at speeds up to 13,000 r.p.m., and builds up clean, firm, uniform filling bobbins that will produce superior results at the loom.

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spinning wheel, spinning jenny and cotton gin are included.

Tools and Shops of the Garment Industry
1938 si 69 fr with script loan ILGWU
Traces the evolution of the needle, presser's iron, cutter's knife, different types of shops and sources of raw materials.

Women's Wear Down the Ages
1938 si 86 fr with Guide $1.00 ILGWU
Pictures the evolution of women's dress from the fig leaf to cellophane!

SLIDES

Contemporary American Textiles
1949 50 sl 2x2 col glass $45 (readymounts $38.50)
rent 10 days $6.60 Prothmann
Made from entries in the exhibit "American Textiles '48" held at the Metropolitan Museum of Art, New York City, November 1948. The fabrics from which these slides were made are a testimony to the achievements, both technical and artistic of the American textile industry.

Early American Textiles
52 sl 2x2 col glass $47.50 (readymounts $40)
rent 10 days $8.00 Prothmann
Includes coverlets, bedspreads, quilts, samples, rugs, carpets, printed cottons and chintzes. Especially valuable for students of design.

COTTON

MOTION PICTURES

Cotton, the Co-Op Way
1947 10 min sd $15 Castle
Like other cotton producers, Jim Newton desires to know more about cotton cooperatives. He visits the local co-op manager and learns of the advantages of membership in such an organization.

Cotton, Picking and Ginning
1948 11 min sd col $15 Hoeffler
The story of cotton from harvest to mill. Shows vast cotton fields in full burst of cotton, hand picking methods, picking by machines, ginning the cotton, scenes inside the actual gin, experts classing cotton according to staple and grade, compressor at work in cotton warehouse, shipping by rail for domestic mills and by ocean freighter for overseas mills. Based on information and technical data supplied by the National Cotton Council.

Cotton Planting
1949 11 min sd col $80 Hoeffler
The story of cotton from seed to harvest.

Dear Miss Markham
26 min sd col loan Modern
Explains in scenes of the Pepperell Mills how bed sheets are made from the raw cotton to the finished product.

LIST OF ABBREVIATIONS

si ..... silent film
sd ..... sound film
min ..... minutes of running time
col ..... colored film
sl ..... slides
fr ..... frames

All motion pictures listed are 16mm unless otherwise noted. All films are black and white unless marked col. All film strips are 35mm single frame unless otherwise noted. The first price given is the purchase price of the film. The rental price follows the word rent. Price for a colored film is sometimes more than black and white. When a difference exists, price for colored film is given following the word col. Transportation both ways is charged for films rented or loaned. The date of the film or filmstrip is given in instances where it is known.

Five Bandits of the Cotton Crop
1948 10 min sd col loan USDA-ALA
Cotton growers annually are robbed of 125 million dollars by destructive insects. These are the bollweevil, bollworm, fleahopper, cotton leafworm and cotton aphid. In rogue's gallery fashion, these insects are brought up under the spotlight for scrutiny and study.

Inside Story
1946 30 min sd col loan PFC
Tells the human story behind the manufacture of cotton gauze and allied products. Sponsored by Chicopee Mfg. Corp., subsidiary of Johnson & Johnson.

Men Who Grow Cotton
21 min sd col $111.24 Castle
Opening with scenes of the color and gaiety of the cotton carnival in Memphis, this USDA film pictures and visualizes the dependence of the South upon cotton. Today the men who grow cotton face competition from other countries and from industrial products in this country—rayon, nylon and paper—which they are meeting by diversified farming . . . discovering new uses of cotton and cotton products. Fast moving, interesting review of the history, present status and future of cotton. Contains some remarkable photography.

Some Pickin'
1946 18 min sd loan Castle
Take a grandstand seat at the National Cotton picking contest, Blytheville, Ark. See 150 contestants toe the mark for the starting gun of the two hour event. Then examine their methods close up with the slow motion camera—the right way and the wrong. . . Sound education on cotton picking.

(Continued on page 197)

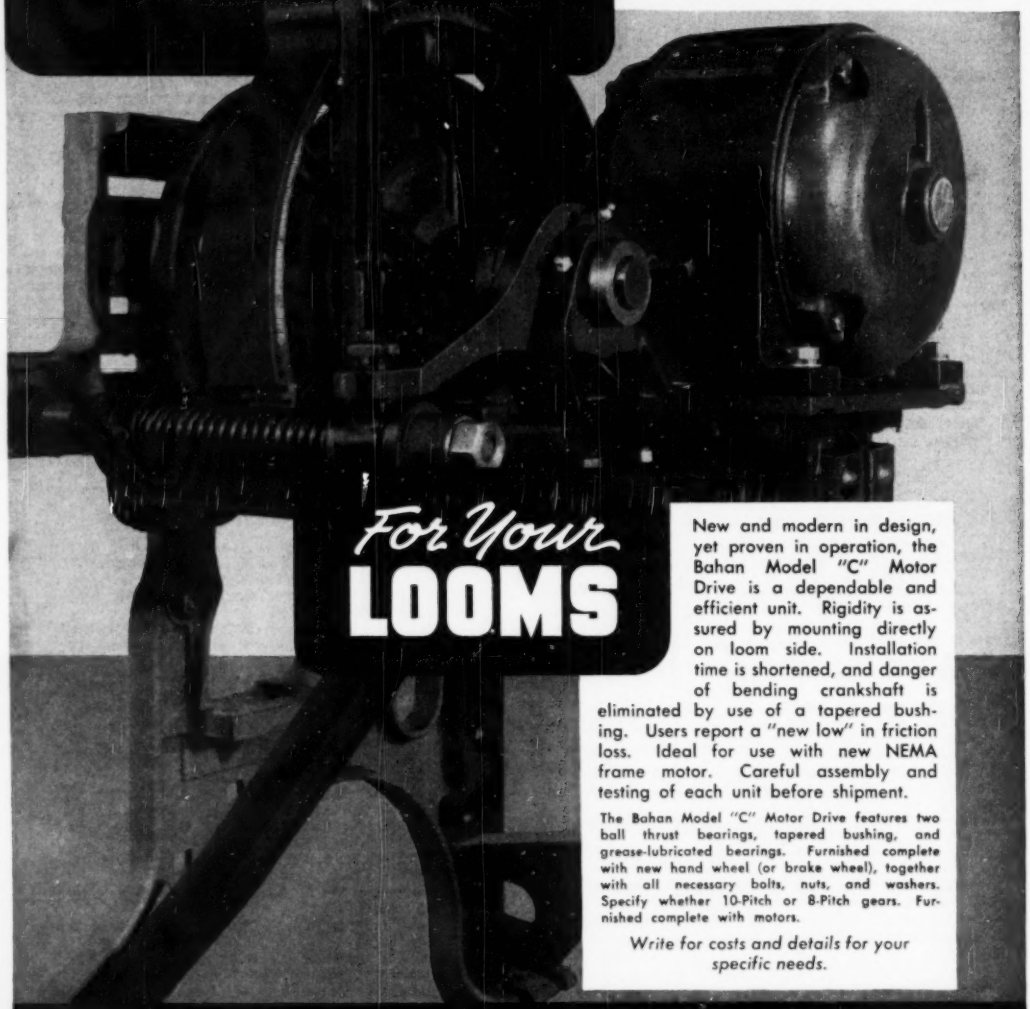
KEY TO ADDRESSES OF SUPPLIERS.

Ambrosch ..... Harold C. Ambrosch, Film Productions, P. O. Box 98, Glendale 5, Calif.
AmerVisc ..... American Viscose Corp., 350 Fifth Ave., New York 1, N. Y.
AssnFlm ..... Association Films YMCA Motion Picture Bureau, 347 Madison Ave., New York 17, N. Y.
AT&T ..... American Telephone & Telegraph Co., Information Department, Film and Display Division, 195 Broadway, New York 7, N. Y.
Austr. News ..... Australian News & Information Bureau, 630 Fifth Ave., New York 20, N. Y.
Bailey ..... Bailey Films Inc., 2044 N. Berendo St., Hollywood 27, Calif.
Barr ..... Arthur Barr Productions, 6211 Arroyo Glen, Los Angeles 42, Calif.
Better-Light ..... Better Light-Better Sight Bur., 420 Lexington Ave., New York 17, N. Y.
BIS ..... British Information Services, 30 Rockefeller Plaza, New York 20, N. Y.
Brandon ..... Brandon Films Inc., 1600 Broadway, New York 19, N. Y.
Burlington ..... Burlington Mills Corporation, Greensboro, N. C.
Calco ..... Calco Chemical Division American Cyanamid Co., Bound Brook, N. J.
CanNFB ..... National Film Board of Canada, 620 Fifth Ave., New York 20, N. Y.
CanSilk ..... Canadian Silk Products, Ltd., 1109 Dominion Square Bldg., Montreal, Que., Canada.
Castle ..... Castle Films Division, United World Films Inc., 1445 Park Ave., New York 29, N. Y.
ChinaFlm ..... China Film Enterprises & America Inc., 132 W. 43rd St., New York 18, N. Y.

(Continued on page 197)

Dependable

DRIVING POWER



For Your

LOOMS

New and modern in design, yet proven in operation, the Bahan Model "C" Motor Drive is a dependable and efficient unit. Rigidity is assured by mounting directly on loom side. Installation time is shortened, and danger of bending crankshaft is eliminated by use of a tapered bushing. Users report a "new low" in friction loss. Ideal for use with new NEMA frame motor. Careful assembly and testing of each unit before shipment.

The Bahan Model "C" Motor Drive features two ball thrust bearings, tapered bushing, and grease-lubricated bearings. Furnished complete with new hand wheel (or brake wheel), together with all necessary bolts, nuts, and washers. Specify whether 10-Pitch or 8-Pitch gears. Furnished complete with motors.

Write for costs and details for your specific needs.

BAHAN TEXTILE MACHINERY CO., Inc.

DESIGNERS AND MANUFACTURERS OF RELIABLE TEXTILE MACHINERY FOR OVER 30 YEARS

Greenville, South Carolina

FILM STRIPS

The Cotton Fleahopper and Its Control

1939 si 43 fr 55c Photo

Life stages of the insect, some plants in which it feeds, damage it does, how it may be controlled, dusting equipment in use.

Cotton—From Field to Mill

1947 si 31 fr with Guide $2.00 SVE

Shows some of the important steps in the cultivation of cotton from the time cottonseed is planted until the bales arrive at the mill. Emphasized throughout is the increasing mechanization of the cultivation of cotton.

Cotton—From Mill to Finished Product

1947 si 27 fr with Guide SVE

The processes and procedure involved in transforming the raw cotton into finished products are pictured in the film. Such manufacturing processes as picking, carding, roving, spinning, warping, weaving, bleaching, Sanforizing, dyeing and printing are pictured. Produced with cooperation of National Cotton Council of America, Memphis, Tennessee.

Facts About Cotton and Southern Farming

1946 si 63 fr double $1.25 Photo

Presents graphs showing cotton problems of today. No lecture notes; the slidefilm is self-explanatory.

NYLON

MOTION PICTURES

This Is Nylon

1949 29 min sd col loan DuPont

The film combines a chemist's story of the properties of nylon, told in non-technical language, and his wife's report of a fashion show in which the versatility of nylon is demonstrated . . . Also animated sequence of the chemistry of nylon.

RAYON

MOTION PICTURES

The Fabric of Our Lives

1948 32 min sd col Burlington apply

Made on location at more than a dozen company plants . . . this film outlines the growth of Burlington Mills to its present position as one of the world's largest producers of rayon fabrics . . . Among activities filmed are transporting of goods and raw materials, handling and spinning of yarns, weaving, dyeing and finishing, and the marketing of finished products in New York.

Science Spins A Yarn

1946 23 min sd col loan AssnFlm Produced by American Viscose Corporation

This film indicates how the expansion of any industry has important effects on purchasing habits, employment and other fields

KEY TO ADDRESSES OF SUPPLIERS

(Continued from page 195)

Collins	Collins & Aikman Corp., 200 Madison Ave., New York, N. Y.
Coronet	Coronet Instructional Films, 65 E. South Water St., Chicago 1, Ill.
DuPont	E. I. DuPont de Nemours & Co., Nylon Division, Wilmington 98, Del.
EBF	Encyclopedia Brittanica Films, Inc., 1150 Wilmette Ave., Wilmette, Ohio.
EyeGate	Eyegate House Inc., 330 W. 42nd St., New York 18, N. Y.
Fiberglas	Owens-Corning Fiberglas Corp., Nicholas Bldg., Toledo 1, Ohio.
Filmsets	Filmsets Inc., 1956 N. Seminary Ave., Chicago 1, Ill.
Flory	Flory Films Inc., 303 E. 71st St., New York 21, N. Y.
GE	Apparatus Dept., General Electric Co., Schenectady, N. Y.
GenMills	General Mills Film Library, 400 Second Ave., S. Minneapolis 1, Minn.
GM	General Motors Corporation, Dept. of Public Relations, 1775 Broadway, New York 19, N. Y.
Harmon	Harmon Foundation Inc., 140 Nassau St., New York 7, N. Y.
Hayworth	Thadene Hayworth & Associates, 5855 Hollywood Blvd., Hollywood 28, Calif.
Hoeffler	Paul Hoeffler Productions, 612½ S. Ridgeley Dr., Los Angeles 36, Calif.
ILGWU	International Ladies Garment Workers Union, Educational Dept., 1710 Broadway, New York 19, N. Y.
IllCen	Illinois Central Railroad, Bureau of Audio-Visual Aids, 135 E. 11 Place, Chicago 5, Ill.
IllumEngr	Illuminating Engineering Society, 51 Madison Ave., New York 10, N. Y.
Industrial	Industrial Engineering College, 3309 W. Washington Blvd., Chicago 24, Ill.
InfClassrm	Informative Classroom Pictures Publishers, Grand Rapids 2, Mich.
IntHar	International Harvester Co. Inc., 180 N. Michigan Ave., Chicago 1, Ill.
IrishLGld	Irish Linen Guild, c/o Elliott & Nelson Inc., 24 Wall St., Norwalk, Conn.
Library Film	Library Films Inc., 25 W. 45th St., New York 19, N. Y.
Lieberknecht	Karl Lieberknecht Inc., Reading, Pa.
Livingston	D. D. Livingston, 220 Clinton St., New York 2, N. Y.
Mahnke	Carl F. Mahnke Productions, 215 E. 3rd St., Des Moines 9, Ia.
Milliken	Milliken Fabrics, Fashion Promotion Division, 56 E. 34th St., New York 16, N. Y.
Modern	Modern Talking Picture Service, Inc., 9 Rockefeller Plaza, New York 20, N. Y.
NatSafe	National Safety Council Film Service Bureau, 20 N. Wacker Dr., Chicago 6, Ill.
PFC	Princeton Film Center, 55 Mountain Ave., Princeton, N. J.
Photo	Photo Lab. Inc., 3825 Georgia Ave., Washington 11, D. C.
Pictorial	Pictorial Films Inc., 625 Madison Ave., New York 22, N. Y.
Pratt & Wh	Pratt & Whitney Aircraft, East Hartford, Conn.
Prothmann	Dr. Konrad Prothmann, 7 Soper Ave., Baldwin Long Island, N. Y.
Simmons	Simmons Co., 1 Park Ave., New York 16, N. Y.
StdOil	Standard Oil Company (N. J.), 30 Rockefeller Plaza, New York 20, N. Y.
SVE	Society for Visual Education Inc., 100 E. Ohio St., Chicago 11, Ill.
USDA-ALA	Audio-Visual Aids Service, University of Alabama, University, Ala.
U. S. Steel	U. S. Steel Corp. of Delaware, 436 Seventh Ave., Pittsburgh 30, Pa.
Vision	Vision Educational Productions, 509 Fifth Ave., New York 17, N. Y.
Wool Bur	The Wool Bureau, Inc., 16 W. 46th St., New York 19, N. Y.

WOULD YOU CHOOSE AN ALL-PURPOSE TOOL LIKE THIS FOR A DIFFICULT JOB?

—Or would you want a specialized tool for the exact job you have to do?

JENKINS' METLKOR

BRUSHES ARE MADE TO YOUR SPECIFIC NEEDS

Because every brushing installation has requirements different from every other—

Jenkins' METLKOR* Brushes are designed and made to give you

METAL CORES—exactly as YOU need them, and made to last.

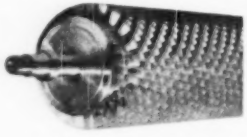
BRISTLE—of the type, length, and arrangement best suited to YOUR specific needs, set on the metal core by Jenkins' patented process.

Specifically, we offer nylon, hog bristle, fiber, horsehair, and mixtures. When the bristle needs replacement it can be removed and new bristle put on, making the brush good as new.

*Trade Mark Registered U. S. Patent Office

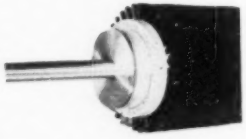
COST NO MORE. PROMPT DELIVERY. EASY TO ORDER.

For Textile Printing



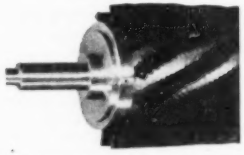
Nylon bristle color-furnisher

In Clothrooms



For brushes and shears

For Wool and Worsted



Stainless steel carbonizer brush

FOR ALL TEXTILE USES: For brushing prior to printing, blanket washing and drying, soaping in screen printing; for carding, reed cleaning, slasher roll cleaning; for flock, raising and laying, combing, singeing, pressing, teasel cleaning, teaseling, wet brushing, polishing, steam brushing; shade cloth coating, thread dressing, pin tentering, loom and floor cleaning, etc.

Give yourself a demonstration of the effects of Jenkins' dynamic balancing, at Booth No. 354, American Textile Machinery Exhibition, Atlantic City.

M. W. JENKINS' SONS, INC.

CEDAR GROVE • ESSEX COUNTY • NEW JERSEY

of human endeavor. As rayon is used in more types of fabric than any other fiber, information about our first man-made fiber has broad interest. Dramatized historical scenes are effectively interwoven into the theme which is laid in a modern day research laboratory.

FILM STRIPS

How Rayon Is Made
1948 si 67 fr with script $1.00 Amer. Viscose
Shows in detail the two major processes of rayon production—viscose and acetate staple.

SILK

MOTION PICTURES

Sericulture
1937 30 mi si $50 (rent $3.00) ChinaFlm
Growth and development of silk worm through proper feeding. Worm spins cocoons and sheds them. It is from the cocoons the silk is made. The ways of reeling the floss, steaming, reeling, skeining and picking are set forth. Finally the conditioned and tested silk is shown made up into garments. Filmed in China.

WOOL

MOTION PICTURES

Cavalcade
25 min sd loan Collins
Manufacture of wool textiles and use.

Life of the Navajo
10 min sd $40 (rent $1.50) Ambrosch
Emphasis upon sheep raising, carding and dyeing of wool and rug weaving.

Men and Mobs
1947 16 min sd $112 (rent $3.75) Austr. News
Shows the growth of the wool industry in Australia from the arrival of Governor Phillips with a small flock to the present day. Shows all stages of the industry, including mustering, shearing, sale of wool to buyers and processing at mills.

Story of Milliken Woolens
30 min sd col loan Milliken
Starting with the arrival of the raw wool at the mill, the movie shows its progress through many complex steps, in which the wool is carded and spun into yarn, and finally woven into cloth and dyed, emerging as a bolt of finished material.
A projector equipped with a long arm for the 1200 ft reel is required to show this picture.

Wool
1947 11 min sd $45 (rent $2.50) EBF
Photographed on a sheep ranch in Montana, in a spinning plant in Illinois and at a knitting mill in Wisconsin.

Wool Away
10 min sd col $75 (rent $2.50) Austr. News
Shearing time in Australia. Mustering, shearing, branding, wool classing.

FILM STRIPS

Wool
si 25 fr with Guide $1.00 BIS
British wool textiles, famous for their excellent quality, rank high among Britain's most valuable dollar exports. The filmstrip describes their manufacture in detail.

Development of Fashions in Wool
si 36 fr with Guide loan Wool Bur
Going as far back as the Norman Conquest of England in 1066, this film shows fine illustrations of the world of fashion up to the present day. Wool was always a favorite, and its contribution to costume and dress through the ages is of primary importance.

Growing Wool—The Story of Sheep from Pasture to Port
si 41 fr with Guide loan Wool Bur
The wool growing industry, starting with maps of sheep distribution and production of the world, is shown in this film. Eleven major breeds of sheep are identified and described in the accompanying script. The film continues with scenes of shearing, dipping, branding, wool sorting, transportation, and auctions.

History of the Wool Trade
si 39 fr with Guide loan Wool Bur
Wool has a long history. It has been of use to man for thousands of years as a means of clothing himself. This film shows the beginnings of the use of wool among the early civilizations of the Mesopotamian Valley, or what is now Iraq. It continues through Roman times, early Continental, to the medieval towns of England. Ancient processes of spinning, weaving and dyeing are shown, as well as methods of shearing, transportation and marketing. There are diagrams of early machines used in the wool textile industry.

History of Wool Textile Processes
si 41 fr with Guide loan Wool Bur
An extremely interesting and well presented film, comparing ancient and modern processes in the production of woolen fabrics. From shearing to weaving, each process is illustrated amply with pictures of both the ancient and modern methods, starting with the 6th century B. C.

The Story of Wool—Part III.—The Wool Industry
si 48 fr with Guide loan Wool Bur
All the mill processes of the woolen and worsted systems are shown in this film with accompanying diagrams. Sorting, scouring, carding, combing, dyeing, spinning, weaving, inspecting.

Other Fibers

MOTION PICTURES

Growing Fibers
8 min si $12.50 Filmsets
Studies the varieties of fibers which are suitable for making yarn used in cloth. Shows the processes of growing cotton, wool, flax, and silk. Rather elementary.

Irish Linen
1946 21 min sd col loan Irish-LGld
Shows the making of beautiful Irish linen from the growing of the flax to the finished article. Primary interest to women.

Story of Binder Twine
1935 11 min sd loan IntHar
Starts with the cutting, stripping, curing, bleaching, drying, baling and shipping of the fibers in Yucatan and the Philippines. Complete mill operations show combing, drawing, and spinning.

Watts in Glass
1947 26 min sd col loan Fiberglas
Illustrates the unique characteristics of Fiberglas materials when used as insulation in electrical equipment under both normal and adverse operating conditions.

Dyeing and Finishing

MOTION PICTURES

Colour
1948 14 min sd col $95 (rent $3.00) BIS
Describes the nature of color and its many uses and then shows the development of modern synthetic dyes by the chemical industry of England.

Making of a Serigraph
1947 30 min si col $140 (rent $6) Harmon
Shows the technique of the artist Edward Landon in producing original art works in four colors by silk screen methods.

Portrait of An Industry
1946 33 min sd col loan Calco
Depicts the discovery of the first synthetic dye, the processes in color manufacturing and the applications of color to industrial and household products.

Silk Screen Process
1945 20 min sd $60 Library Film
Technique of silk screen printing. A detailed presentation of the steps involved in making screen and in printing. Shows one color and vari-color work.

Technique of the Silk Screen Process
1949 15 min $30 (rent $1.50) Brandon
Film shows Harry Gottlieb, leading American exponent of the silk screen process as a fine art medium, at work. It starts from the very first subject transfer and shows step by step progress until the finished print is shown.

(Continued on page 201)

PUT THE BRAKES ON BREAKDOWNS

Crack down on profit-killing repairs and costly breakdowns in 1950.

Let Jenkins smooth-running, Dynamically Balanced Cylinders reduce the wear and tear on spindles, bolsters, bobbins, gears, journals, and bearings. New or rebuilt, they last longer, run without strain at higher speeds because Jenkins exclusive Dynamic Balancer *eliminates vibration.*

Cut out expensive card and picker down-time by regularly checking your screens for cuts, dents, or frays. Let Jenkins' experienced craftsmen replace or rebuild damaged screens to precision standards that insure perfect "setting" for either slotted or perforated card screens.

It's cheaper to stock spare cylinders, picker and card screens than to wait for repairs.

PROMPT SERVICE

SUPERIOR WORKMANSHIP

JENKINS METAL SHOPS INCORPORATED

GASTONIA, NORTH CAROLINA

HOSIERY

MOTION PICTURES

Hosiery Manufacturing
15 min sd loan Lieberknecht
Shows steps in knitting on a 32-section auto-welt full-fashioned knitting machine. The story is presented in a semi-technical manner to appeal both to the layman and the hosiery expert.

She Walks in Beauty
1949 20 min sd col loan CanSilk
Shows in detail each step in the manufacture of nylon stockings.

WEAVING

MOTION PICTURES

Border Weaves
16 min sd col loan Wool Bur
Scottish Woolen Industry.

Crest of Quality
1946 30 min sd loan Modern
Pictures the weaving and manufacture of cotton goods.

The Loom
1943 12 min sd $40 (BW si $30) (col $75) Barr
A narrative of the many different tools used by the pioneer weavers to produce cloth.

Navajo Rug Weaving
1941 16 min si col $50 (rent $3) Bailey
Shows how the Navajo Indians weave their famous rugs. Detailed processes.

Weaving
1946 15 min si part col $70 (rent $2) Harmon
Shows how modern looms bring native ingenuity and present day demands together as an Indian design is woven at the Santa Fe Indian School.

Weaving Homespun
1948 11 min sd $40 (rent $2) Flory
The film depicts step by step the shearing of sheep, washing and carding of wool, spinning the thread, winding the skeins, dressing the loom and weaving a piece of cloth.

FILM STRIPS

Cloth Construction and Identification
si col 34 fr loan Wool Bur
This film shows by means of diagrams and enlargements many different kinds of weaves employed in the making of woolen and worsted fabrics. Pattern weaving (dog tooth, hairline and step) is illustrated. The difference between a woolen and worsted thread is shown by a much enlarged microscopic shot. Pile fabrics, Scottish checks, raised and milled woolens, woolen fancy cloth, men's worsted suitings, ladies' worsted dress fabrics, cords, plainweave, hopsack, twill, sateen, and crepes are shown.

Homespun Linen
1949 si with Guide $3.95 Eye Gate
Photographs of the weaver's demonstrations at the Farmer's Museum, Cooperstown, N. Y. showing all the complicated aspects of spinning and weaving.

Management and Personnel Relations

MOTION PICTURES

(Employment and induction)

Counseling—Its Tools and Techniques
1948 22 min sd $100 (rent $5) col $200 (rent $10) Mahnke
Shows a well trained counselor at work. Shows the trainee what tools and technique to use in counseling and how to use them to the best advantage. Included are interviewing tests, questionnaires, and the use of films.
Produced by Vocational Guidance Films on work done at Michigan State College.

How to Keep a Job
1949 10 min sd $45 (col $90) Coronet
Admitting the importance of selecting the right vocation and specific position, job success also involves getting along with fellow workers, conduct of work, attitude toward company, and several other factors which this film explains.

(Personnel and Production Management)

Coin Your Ideas
1946 10 min sd col loan StdOil
An animated cartoon short on the company's (Standard Oil of New Jersey) suggestion system.

Establishing Working Relations for the Disabled Worker
1946 14 min sd $25.71 Castle
Shows the tact and judgment which a supervisor must use in establishing working relations for a disabled worker.

Produced by U. S. Office of Education.

How NOT to Conduct a Meeting
10 min sd loan GE
Comedy treatment of certain types of informal luncheon gatherings. Shows the way not to conduct a meeting by emphasizing the mistakes so often made.

Its Our Job
1944 40 min sd loan Pratt & Whitney
In typical straight-from-the-shoulder shop language, with a variety of realistic shop personnel, employer-employee relationships are shown. Problems include shifting the workers from job to job, breaking in new workers to the job and general shop procedures of discipline.

Strange Interview
1947 55 min sd loan GM
Owner of a small plant, because his production is falling off, introduces rigid discipline and only aggravates matters. Through a dream sequence he finds that his human relations are what need improving.

Suggestions Unlimited
1947 30 min sd col loan IllCen
Shows how employees' suggestions are handled by Illinois Central Railroad's Joint Labor-Management suggestion committee.

Supervision—Developing Cooperation
14 min sd $19.96 Castle
Discusses the right and wrong ways of supervision. Emphasizes cooperation among workers.
Produced by U. S. Navy.

What's Your Idea
1947 20 min sd col loan Gen Mills
Shows how the employees' suggestion system operates at General Mills.

(Time and Motion Study)

Mighty Labors
1948 32 min sd col $210 (rent $6.69) Industrial
Explains industrial engineering for the general public. Demonstrating all phases of time study methods of engineering, job evaluation, plant layout, process charting and wage incentives, it illustrates and explains modern controls as essential to economical production.

(Miscellaneous)

Danger—Women at Work
1943 10 min sd $42.50 Vision
Some suggestions for working women regarding maintenance of good health and safety precautions on the job.

Help Yourself Beat the Heat
1945 12 min sd col loan U. S. Steel
Stressing good health habits, proper diet and use of salt and dextrose, this film in response to numerous requests, is offered as an aid to those studying similar heat problems.

Let Us See
1944 20 min sd $60 IllumEng
A dramatization of the material in the "American recommended practice of industrial lighting" which is the recognized authority on industrial lighting.

Light Is What You Make It
1946 10 min sd col loan Better-Light
The glamour of technicolor and the Disney cartoon technique have been employed in the 1946 program of the National Better-Light—Better Sight Bureau to dramtize the latest scientific facts of sight protection with modern lamps and lighting fixtures.

New Voice for Mr. X
1939 21 min sd loan AT&T
Presents the story of a mythical character who feels that his business is suffering because of careless telephone habits and incorrect telephone usage.

You and Your Work
1949 10 min sd $45 (col $90) Coronet
The story of Judd Taylor, his failure in a good job and of his ultimate rehabilitation and success.

(Continued on page 285)

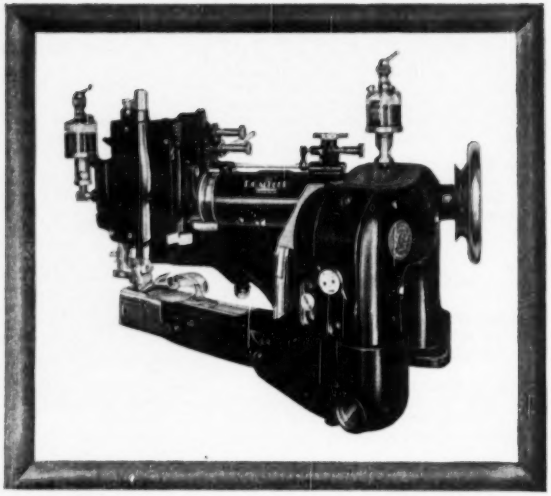
No matter how you look at it

YOU'RE AHEAD

with the W&G

"DUALFEED"

machine



THE OWNER looks at the W&G "Dualfeed" machine as a highly profitable *investment*. For it *is* just that—an investment that pays for itself many times over in high-speed, low-cost production. What's more, it pays off in added sales appeal of the finished garment, too. Work clothes actually *look* better and *last longer* when out- and in-seam operations are done on the "Dualfeed" machine. The seams are neat, strong and durable—entirely free from wrinkles or distortion.

THE OPERATOR sees the "Dualfeed" as a big time-saver in her work—a thoroughly *dependable* machine that turns out more pieces per hour, with minimum effort. She likes the comfortable operating position—the roomy work clearances—the easy threading—the semi-automatic lubrication that requires so little attention—and the positive synchronization of upper and lower feeds that permits both plies to be fed evenly for the full length of the seam without assistance.

THE MAINTENANCE MAN doesn't see very much of a "Dualfeed" machine. That's one reason why he likes it so much. The single, solid-base design simplifies installation—and once installed, he can forget about it, except for routine inspection and cleaning. For this machine is designed and built to take the punishment of sustained high-speed operation year after year, with minimum attention and maintenance. All parts are easy to get at—accessible through large, readily-removable covers.

The "Dualfeed" is available with two or three needles, producing two or three rows of U. S. Standard Type 401. For complete information on the time-saving, money-saving features of this machine, send in the coupon below for your free copy of Bulletin No. 802.

WILLCOX & GIBBS
Sewing Machine Co.

214 West 39th St., New York 18, N.Y.

WILLCOX & GIBBS Sewing Machine Company
214 West 39th St., New York 18, N. Y., Dept. G2

Gentlemen:

Please send me Bulletin No. 802 on the W & G "Dualfeed" machine.

NAME .....

COMPANY .....

ADDRESS .....

CITY ..... STATE .....

For Underwear and Outerwear Manufacturers

Knitting & Allied Crafts Exposition

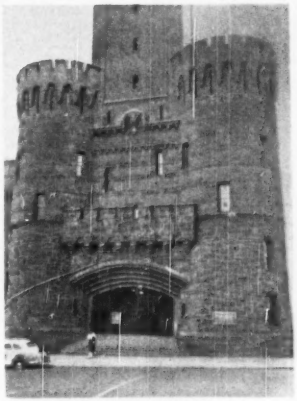
New York City, April 24-28

KNITTED underwear and outerwear manufacturers from plants all over the United States are looking forward with pleasure to the week of April 24-28 when they will gather in New York City for a dual purpose: (1) to attend the annual meetings of their respective trade associations—the Underwear Institute and the National Knitted Outerwear Association, and (2) to visit the Knitting and Allied Crafts Exposition, the first trade show of its kind exclusively for knit underwear, outerwear and allied industries.

The latest machinery, equipment and supplies for the manufacture of underwear and outerwear will be on display at the 71st Regiment Armory, 34th Street and Park Avenue, scene of the Exposition which is being sponsored jointly by the two knitwear associations. Industry executives and key operating personnel will have an opportunity to conveniently see firsthand the most recent developments and offerings of the suppliers that provide for greater efficiency and economy in plant operations.

The exposition officially opens on Monday, April 24, at 2:00 P.M. and closes on Friday, April 28. Show hours are 10:00 A.M. to 5:00 P.M. daily except on Monday when the exhibit hall will remain open until 10:00 P.M. and Friday when the show will close at 2:00 P.M.

Tickets for admission to the Exposition are available upon request to Arthur Tarshis, president, Expositions for Trades, 36 West 47th Street, New York 19, N. Y., manager of the Exposition. Requests should indicate the number of complimentary trade guest tickets desired.



The 71st Regiment Armory where the Exposition will be staged.

Hotel accommodations are available; however, those planning to attend are urged to make reservations immediately by addressing communications directly to the hotels of their choice. The Hotel Vanderbilt is directly opposite the Exposition hall, at 34th Street and Park Avenue. Other hotels nearby are the McAlpin at 34th Street and Broadway, and 10 blocks away from the hall are such hotels as the Waldorf-Astoria, Belmont Plaza, Lexington, and many others.

Institute Annual Meeting. On Thursday, April 27, the annual meeting of the Underwear Institute will be held at the Hotel Commodore. The executive committee meeting will be held the preceding day.

Outerwear Association Meeting. The 32nd annual convention of the National Knitted Outerwear Association is scheduled for Tuesday and Wednesday, April 25-26, at the Waldorf-Astoria.

Arrangements have been made by the Association for four hotels to provide accommodations for members who plan to be in New York during the convention week. The hotels are: The Waldorf-Astoria, 50th Street and Park Ave.; the Hotel Taft, 7th Ave. and 50th St.; the Hotel New Yorker at 8th Ave. and 34th St.; and the Parkside Hotel, 18 Gramercy Park South. Members interested in making advance reservations at any of these hotels are urged to write to them directly.

Climaxing the two-day convention will be the banquet to be held in the grand ballroom of the Waldorf-Astoria on April 26 at 6:30 P.M.

Preview of Exposition. In order to be of service to the readers of TEXTILE INDUSTRIES who are engaged in the underwear and outerwear manufacturing industry, a

STANDARD *Durene**

assures you better,

more profitable knitting or weaving — quality controlled

*Reg. U.S. Pat. Off.

Long stapled, carefully processed, Standard Durene gives you a steady, economical flow of smooth, even knit or woven goods that find ready sale. Try it on your next number. 10's to 120's ply, natural, bleached, dyed.

Standard Durene S-C-T Cotton Industrial Threads

Standard-Coosa-Thatcher Co.

CHATTANOOGA 1, TENN.

Philadelphia 9, Pa.	New York 16, N. Y.	Chicago 54, Ill.	Greensboro, N. C.	Reading, Pa.	Utica, N. Y.
123 S. Broad St.	185 Madison Ave.	Merchandise Mart	Guilford Building	509 Walnut St.	P. O. Box 105

Representatives in Canada, Central and South America

listing of the exhibitors, their booth numbers, products to be shown, and representatives in attendance is published in the accompanying section. A floor plan of the exposition hall appears on page 207 for the convenience of those desiring to locate their supplier friends.

Although the directory listing the exhibits of the various manufacturers is as complete as cooperating companies furnished up to the closing date of this April issue, absence of a description of the exhibit is no indication that the exhibitor will only have resting space.

The exhibits will cover an area of 35,000 sq. ft.—all on one floor with no column obstructions.

According to the management of the Exposition, the show is scheduled to be held biennially.

Opening and Closing Hours
Knitting & Allied Crafts Exposition
April 24-28

	Open	Close
Monday	2:00 P.M.	10:00 P.M.
Tuesday	10:00 A.M.	5:00 P.M.
Wednesday	10:00 A.M.	5:00 P.M.
Thursday	10:00 A.M.	5:00 P.M.
Friday	10:00 A.M.	2:00 P.M.

Directory of Exhibitors, their Representatives, and Products at the Knitting & Allied Crafts Exposition

ABERFOYLE MANUFACTURING COMPANY
Chester, Pa. 47
J. S. Kenrick, Vice-Pres.
W. Brown
H. M. Detwiler
Wm. Galey III
David Gott
J. A. Holt
A. Huston, Jr.
H. Gordon Kenna
F. G. Miller
R. F. Morris
Wm. G. Vetterlein
Exhibiting: Fabrics and garments made of Durene and dyed cotton yarns; also of Fiberfoyle, a new yarn with special qualities of drape, luster and hand. In addition, items made of Daylight Fluorescent Yarns featuring new colors developed by Switzer Bros. and marketed by Aberfoyle, will be on display.

AMERICAN BLIND STITCH MACHINE COMPANY
New York, N. Y. 77
Exhibiting: The Model 9 SS-1 skip-stitch machine for sewing hems and other operations on garments where it is desired that the stitch be invisible on the right side; also the Model 12 BST machine for tacking garments and showing no penetration from the right side.

AMERICAN KNITTING MACHINE COMPANY
Brooklyn, N. Y. 85
George Zielinski, Partner
Michael Zielinski, Partner
Exhibiting: "Speedy" slitter for slitting double borders, Links and Links bodies and sleeves, sleeves from V-type flat machines, circular cloth, etc. In addition, cams, attachments and parts for domestic and foreign flat machines; also sinkers, jacks and push jacks for circular and flat link knitting machines.

AMERICAN SAFETY TABLE CO.
Reading, Pa. 30

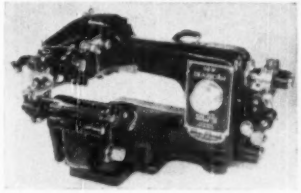
THE AMERICAN THREAD CO.
New York, N. Y. 33

AMERICAN VISCOSE CORPORATION
New York, N. Y. 54-55

BARBET MILLS, INC.
Lexington, N. C. 66
C. A. Ross, Pres.
L. E. Silverman, Sales Mgr.
Mack Reibel, Sales
Murray Afrecan, Sales
Exhibiting: Knitted fabrics and garments manufactured from these fabrics.

BARRE WOOL COMBING CO.
South Barre, Mass. 68
Exhibiting: The Harriset process for shrink resistance of wools. Treated and untreated sweaters, socks, shirts and fabrics, and treated wool top in the white and dyed will be on display. Equipment for demonstrating top shrinkage tests will also be available. Exhibit sponsored jointly by Harris Research Laboratories, Washington, D. C., The Barre Wool Combing Co., and the Ames Worsted Co. of Lowell, Mass.

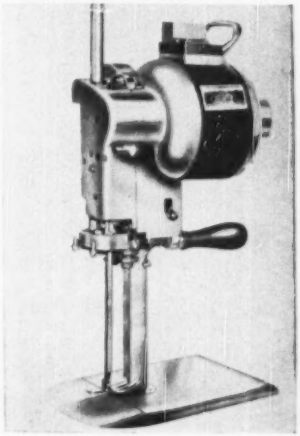
Model 12 BST machine for tacking garments (American Blind Stitch).



BAUSCH & LOMB OPTICAL CO.
Rochester, N. Y. 35

BEAVER CLOTH CUTTING MACHINES, INC.
New York, N. Y. 12
J. R. Hoff
Hy Hockman
J. B. Becker
H. S. Hoff
L. Vogel
B. Aarons
Exhibiting: Complete line of cloth cutting machines, including rotary types in 4-inch and 5½-inch sizes and reciprocating straight knife types with automatic self-sharpeners in sizes ranging from 4 inches to 8 inches. Featured will be the Model 50 straight knife cut-

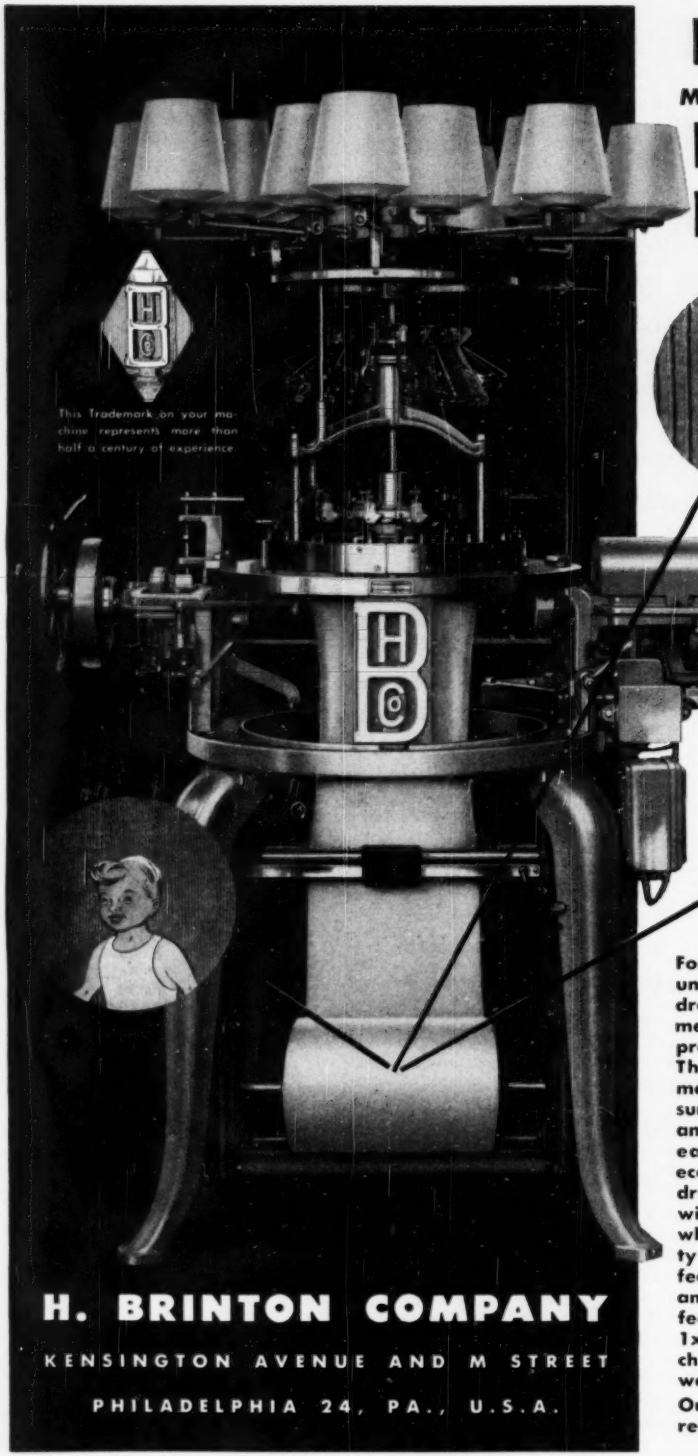
Self-sharpening automatic cloth cutting machine (Beaver).



BRINTON

MAXIMUM FEED

RIB BODY MACHINES



For the manufacture of fine underwear for infants, children, boys, men and women, the BRINTON Machines produce a superior fabric. They incorporate every modern feature that assures satisfactory performance — high production — ease of operation and economy. Individual motor drive, electric stop motion with safety control, free wheeling, improved capacity take-up reel and extra feeds. Sizes — 8″ to 26″ diameter — from 8 to 26 feeds. Plain or automatic 1x1 and 2x2. Precision machines for quality underwear.

Our Bulletin awaits your request.

H. BRINTON COMPANY

KENSINGTON AVENUE AND M STREET

PHILADELPHIA 24, PA., U.S.A.

ting machine with automatic self-sharpener, and a new cloth drill.

BELDING CORTICELLI
New York, N. Y. 64
F. H. Murphy, Gen. Sales Mgr.
W. F. Operer, Eastern Dist. Mgr.
Arthur Gross, Jr., Adv. Mgr.
Exhibiting: Industrial threads and featuring "Nymo," a nylon monocord sewing thread with no twist.

S. BLICKMAN, INC.
Weehawken, N. J. 1

H. BRINTON COMPANY
Philadelphia, Pa. 37-38
Exhibiting: Latest developments in Brinton circular latch needle body size knitting machines.

BRYSON MANUFACTURING COMPANY
Clifton, N. J. 26

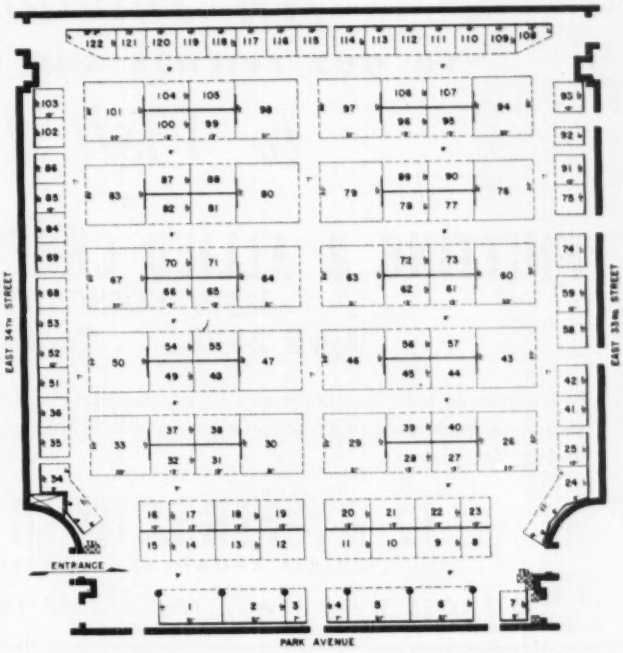
CARON SPINNING COMPANY
Rochelle, Ill. 52
O. J. Caron, Pres.
W. H. Stocking, Sales Mgr.
John B. Caron, Treasurer
E. W. Breyman, Sales
B. J. Zintak, Sales
Frank H. Durr, Rep.
J. Blackwood Cameron, Rep.
A. Cameron, Rep.
Exhibiting: Educational display on manufacture of worsted yarn; also samples of yarn, including worsted, "Korspun," nylon, nylon and wool, and rayon and wool.

COMET ENVELOPE & PAPER COMPANY, INC.
New York, N. Y. 88A

CUTTING ROOM APPLIANCES CORPORATION
New York, N. Y. 14-17
H. Walter Gilbert, Pres.
David Grossberg, Sales Mgr.
Al Greene
Bernard Nathanson
Harold Liebman
Sol Lerner
A. I. Pransky
Sydney L. Hirsch
John E. Fox
Ralph Levy
Sam Schwartz
Melvin Weis
Exhibiting: The "Clip-Matic" thread trimmer for locating, clipping and removing threads and loose ends from apparel and textile items. An electric knit goods spreader for tubular knit fabrics, a motor-driven machine for laying up and centering tubular materials without stretch or tension, "Electromatic" cloth spreaders for all types of fabrics, a cloth measuring and inspecting machine, and metal sectional cutting tables are other items of equipment to be on display.

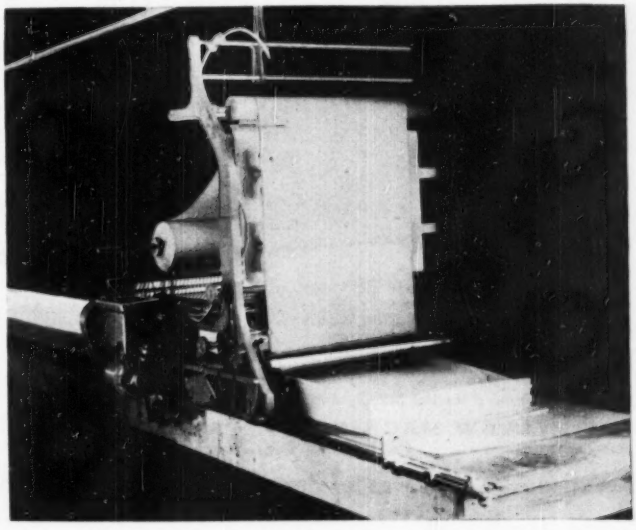
DAILY NEWS RECORD
New York, N. Y. 28

C. R. DANIELS, INC.
Daniels, Md. 91



Floor plan of the 71st Regiment Armory. It will be useful in locating suppliers for the knitted outerwear and underwear mills.

DUBIED MACHINERY COMPANY
Long Island City, N. Y. 70-71
John G. Sandri, Mgr.
Ernest Hafner, Technician
Jacques Gutknecht, Technician
Exhibiting: The new "Cal 1950" full automatic, double lock flat links machine which has recently been



Electric tubular knit goods spreader (Cutting Room Appliances).

An Invitation

TO OUR FRIENDS AND CUSTOMERS

to Visit Us

at

KNITTING & ALLIED CRAFTS EXPOSITION

NEW YORK CITY

April 24-28 . . . Booth No. 57

We expect to have on exhibit one of our machines built to the high standards and quality that have been associated with our products over the years. Stop in and see us. We will be looking for you.

J. A. FIRSCHING & SON

421-423 BROAD ST. UTICA, N. Y.

"FOR THOSE WHO WANT THE FINEST IN TEXTILE MACHINERY"

Established 1838

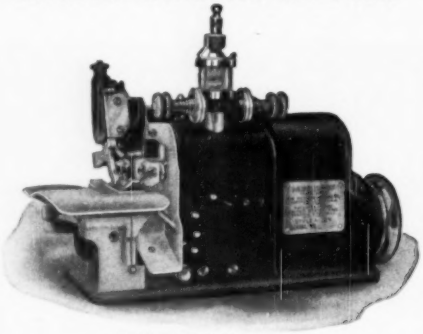
TRADE MARK
MERROW
REG. U.S. PAT. OFF. AND FOREIGN COUNTRIES

Incorporated 1894

HIGH SPEED OVEREDGING, OVERSEAMING AND HEMMING MACHINES

FOR USE ON

Knitted and Woven Wear of All Kinds



QUALITY RESULTS
HIGH PRODUCTION
CONVENIENT HANDLING
MINIMUM TIME-OUT FOR ADJUSTMENT OR REPAIR
LOW UPKEEP COSTS

For Best Results Use a Machine Suitably Arranged for Your Work

THE MERROW MACHINE COMPANY

2805 LAUREL STREET HARTFORD 6, CONN., U. S. A.

—Distributors—

HOLLISTER-MORELAND CO., P. O. BOX 721, SPARTANBURG, S. C.

Knitting and Warp Yarn

4's to 30's

AVONDALE MILLS

SYLACAUGA, ALABAMA

SALES REPRESENTATIVES

COMER-AVONDALE MILLS, INC.

Boston — Chattanooga — Chicago — Charlotte
New York — Philadelphia — Reading

Steele's New Type Frame Has Built-In Longer Wear

Write for folder showing wide range of baskets, trucks and hampers, and the superior construction features which have made them truly satisfactory with mill men.

STEELE CANVAS BASKET CO., Inc., Newton 58, Mass.

FORMERLY STEEL SUPPLY CO., INC.

Booth 51 KNITTING & ALLIED CRAFTS EXPOSITION

Check Your Fishing Equipment Regularly

When tackle is inspected regularly, there is less likelihood of the "big ones" getting away.

Have your Full-Fashioned Knitting Machines checked—regularly—to keep them at highest efficiency . . . Follow a regular program for reneedling and your needle bars are always in shape for better knitting . . . Follow a regular program for reconditioning and your plant is always at peak performance. We will be glad to discuss this matter of regularity as it applies to your mill operation.

TEXTILE MACHINE WORKS • READING, PA.

The "READING"
Full-Fashioned Knitting Machine

Superior Strength

Textile Spring-Beard Needles are strong at the butt . . . strong at the beard . . . strong at *every* point. The superior strength found in Textile Spring-Beard Needles is imparted through a special steel formula, proper tempering and scientific controls—automatic and electronic—which constantly check each stage of production.

Strength is another of the many advantages you receive through Textile's quality controls. If you want better performance, more even stitches and bigger profits, use Textile Spring-Beard Needles in your needle bars.

TEXTILE MACHINE WORKS, READING, PENNA.

Textile

SPRING-BEARD NEEDLES

For Full Fashioned and Warp Knitting

produced by the Dubied factory in Switzerland. The machine is said to retain all the pattern possibilities of the previous type and, in addition, it will be fitted with a front sinker selection which, in conjunction with the rear Jacquard operating on four positions, will allow for the knitting of the true cable stitch without floats or links row at the time of racking. Another machine to be exhibited by this concern is a new circular Jacquard machine type "Wevenit 24 feed" for the manufacture of knitted cloth by the yard. While it retains its single needle selection feature, this new machine is fitted with a single film that controls independently each of the 24 feeds. The range of patterns continues to be unlimited, it is claimed.

EDMOS PRODUCTS
Brooklyn, N Y. 62-63
Milton Moskowitz, Pres.
Alfred F. Malluck, Sales Mgr.
Lawrence Reed, Chief Eng.
Arnold Fried, Service
Julius Citron, Service
Exhibiting: A new 26-inch diameter, 12 cut, 38-feed Type EEM Super Multi Feed Rib Knitting Machine. A built-in lint remover air blower system which automatically cleans all parts of the machine, including the stop motion, will be shown for the first time. The regular line of Type EEM "Speed-Knit" rib machines of various sizes and cuts will also be on exhibit, making a total of 6 machines.

JOHN EPPLER MACHINE WORKS
Baltimore, Md. 69

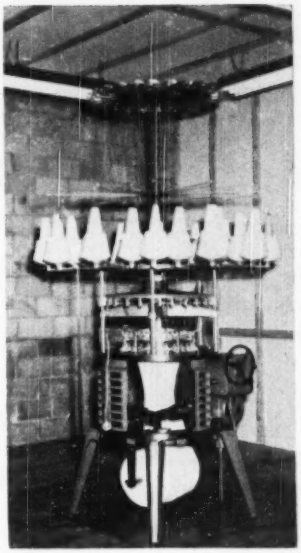
EWING-THOMAS CORPORATION
Chester, Pa. 19
Jacob F. Meschter
Jesse W. Jester
Exhibiting: Space for visitors.

FEEDRAIL CORPORATION
New York, N. Y. 76
Exhibiting: An actual working installation of an electrical distribution system showing all connections to sewing machines; it will include a full scale model of a sewing unit together with a cutting table equipped with Feedrail track and trolleys.

J. A. FIRSCHING & SON
Utica, N. Y. 57

FRANKLIN PROCESS COMPANY
New York, N. Y. 113
Carroll L. Blomgren, Rep.
S. Warren Cable, Rep.
W. Allen Traver, Pres.
C. W. Dawson, Plant Mgr.
W. F. Wolfe, Vice-Pres.
C. R. Ewing, Vice-Pres.
Exhibiting: Dyed and bleached cotton yarns.

GINSBERG MACHINE COMPANY
New York, N. Y. 45
William R. Lieberman, Sales Mgr.
Si Margolis, Sales Prom. Mgr.
Frank Schwahn, Sales Rep.
William Bleicher, Sales Rep.
Phil Harris, Sales Rep.
Exhibiting: "Trim-Master" equipment for automatically trimming threads from piece goods, garments and hosiery.



18-inch, 27 feed, 12 cut Type EEM multi-feed rib machine (Edmos).

GLOBE DYE WORKS COMPANY
Philadelphia, Pa. 1A
H. T. Greenwood, Pres.
Thomas S. Greenwood
William Goodis
William A. Hilbert
George T. Moore
William B. Taylor

GOLDMAN PRESSING MACHINE CORPORATION
New York, N. Y. 116
Exhibiting: Completely automatic air operated steam pressing machines developed especially for knitwear manufacturers. Machine will completely press, steam, and vacuum a garment automatically by simply touching a pedal.

FRED C. GOOD & SONS
Philadelphia, Pa. 27
Fred C. Good, Pres.
Raymond J. Good, Vice-Pres.
Fred G. Good, Supt.
Elmer J. Trott, Sales Mgr.
Exhibiting: 21 gauge, full-fashioned outerwear knitting machine.

H. B. C. CLOTH SPREADERS
New York, N. Y. 12

HOSIERY & UNDERWEAR REVIEW
New York, N. Y. 4A

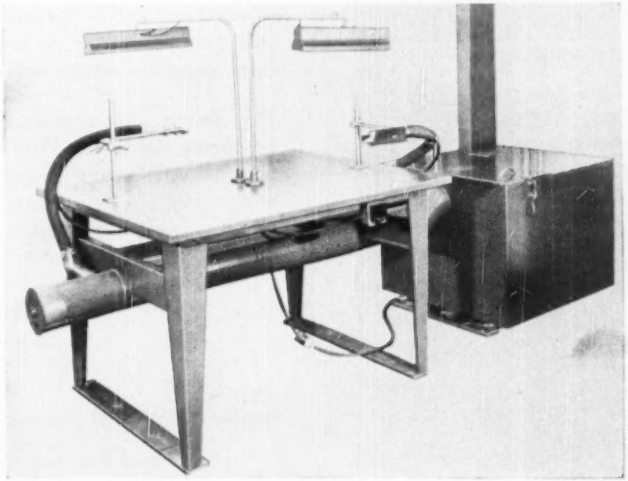
INDIAN ORCHARD FINISHING COMPANY
Indian Orchard, Mass. 7

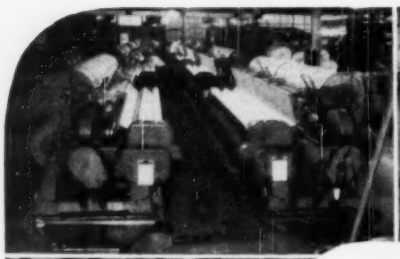
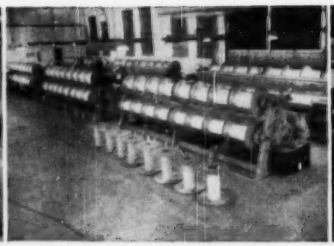
INTERSTATE RAYON YARNS, INC.
North Bergen, N. J. 73
Louis Ginsberg, Pres.
Jack H. T. Albert, Treas.
Emanuel Fried, Sales Rep.
Exhibiting: Line of novelty and rayon yarns, including nubs, loops, spirals, chenilles, etc., designed specially for use on knitting and sewing machines. Fabrics and garments utilizing these yarns will be included in the exhibit.

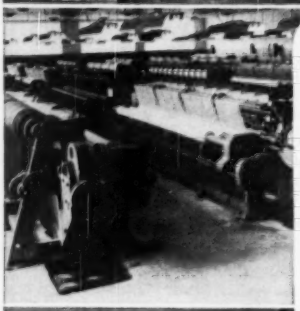
JACQUARD KNITTING MACHINE COMPANY
Philadelphia, Pa. 97
H. Albertman, Vice-Pres.

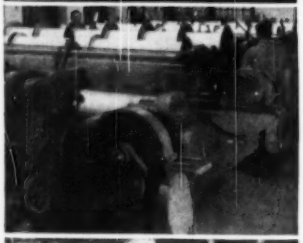
JOHNSTON MILLS COMPANY
Johnston, S. C. 61

"Trim-Master" suction thread trimmer (Ginsberg).







Accomplishment

We are pleased to announce that over five hundred 168-inch High Speed Tricot Machines have already been installed in America's leading mills. New orders and re-orders are our best assurance that Reiner equipment has met the most exacting tests and demands of mill owners everywhere.

Today's active and profitable tricot market more than ever focuses attention on Reiner High Speed Tricot Machines and their preparatory equipment, Reiner Creels and Warpers. Those interested in the field of tricot knitting may turn to us with confidence, for we have earned it from those who have been using our equipment over the years.

The Reiner Line also includes Raschel Machines, Simplex Machines, Kaylooms, Full-Fashioned Hosiery Machines up to 66-Gauge, Warpers, Beamers and Creels for all requirements and sizes; also Automatic Embroidery Machines. Expert advice and immediate spare part service are always available.

May we invite you to visit our plants?

ROBERT REINER, INC.

550-564 GREGORY AVENUE • WEEHAWKEN, N. J.

Telephone: UNion 7-0502

From New York City use LOngacre 4-2216

KASTRINSKY MACHINE COMPANY
Brooklyn, N. Y. **72B**

KIDDE MANUFACTURING CO.
Bloomfield, N. J. **86**
John H. Fleming, Sales
Exhibiting: Photographs of the Kidde Knitter and the fabrics that it is capable of producing.

A. KIMBALL COMPANY
New York, N. Y. **9**
L. J. Waters
P. M. Pope
R. H. Wetherby
E. M. Farrell
J. C. Bidstrup
Wm. O. Hopley
M. Potts
R. Livingston
D. O'Brien
T. R. Spencer
John P. McGuire
Exhibiting: Cone labeling machine, Hand Midget, Motor Midget, Kimco, and Kimflex attacher.

THE KNITTER
Charlotte, N. C. **34**

KNITTING MACHINE & SUPPLY COMPANY
New York, N. Y. **65**

KROY, INCORPORATED
Lowell, Mass. **114**
L. W. Lawson, Pres.
M. S. Pendleton, Mgr.
A. W. Thomson, Tech. Dir.
Exhibiting: Yarns and products made of Kroy processed wool.

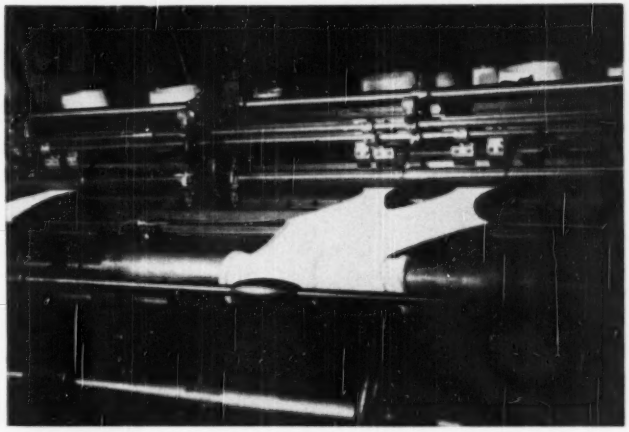
W. T. LANE & BROS., INC.
Poughkeepsie, N. Y. **24**
R. T. Lane
Paul R. Hughes
Exhibiting: Canvas work boxes, floor trucks, and shipping hampers.

LATTA, CURRIER COMPANY, INC.
New York, N. Y. **53**
Albert W. Latta, Jr.
Arthur M. Currier
William F. Durkin
Exhibiting: Yarns manufactured by mills represented; also products made from these yarns.

PERCY A. LEGGE
New York, N. Y. **2**
Edward Legge, Partner
O. L. McCurdy
W. Smith
R. C. Condon
C. W. Neeld
T. Adams
R. Rosenfeld
Exhibiting: Bradford and French spun worsted yarns, woolen yarns, and yarns made of mohair, blends of angora, cashmere, rabbit hair, etc. Also, Firestone Contro and bare rubber threads.

MACANAL TEXTILE CORP.
New York, N. Y. **88**

MACKNIGHT & ETHERINGTON BROS.
Philadelphia, Pa. **2A**
Wm. A. P. MacKnight, Partner
Frederick H. Etherington, Partner
Burton H. Etherington, Jr., Partner
Wm. M. Pomeroy, Jr., Sales
Exhibiting: Space for visitors.



Full-fashioned machine for making knitted outerwear (Good).

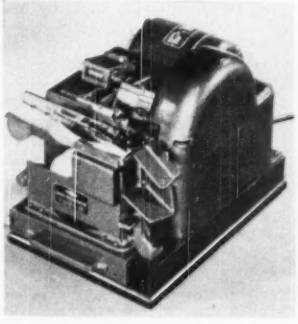
MARKEM MACHINE COMPANY
Keene, N. H. **18**
David F. Putnam, Vice-Pres.
Harold D. Milton, Field Sales Mgr.
Harold B. Lampman, Sales Rep.
Ferd T. Suehle, Jr., Sales Rep.
Robert C. Mensel, Sales Rep.
Exhibiting: High speed industrial marking machines, including a heavy duty box and label printer, a machine for producing complete fabric or paper labels, and a tag marker for payroll piecework tags, coupons, production tickets, etc.

MASUREL WORSTED MILLS
Woonsocket, R. I. **93**

MEESE, INC.
Madison, Ind. **36**

MERROW MACHINE COMPANY
Hartford, Conn. **48-49**
J. M. Washburn, Pres.
W. M. Baker, Asst. Treas.
E. E. Champlin, Field Eng.

Midget Marking Machine (Kimball).



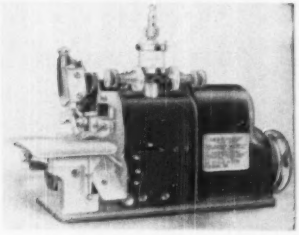
Merrow (continued)
H. F. Stolzenberg
W. N. Reynolds
C. W. Davis
Exhibiting: Machines for overseaming, overedging, and blind hemming of knit underwear and outerwear.

CLARENCE L. MEYERS & CO.
Philadelphia, Pa. **13**
Clarence L. Meyers
Milton M. Meyers
Charles E. Bender
Edward N. Myers
Harry W. Schrader
Gordon E. Meyers
James A. Meyers
Daniel Strauss
Exhibiting: Durene and cotton yarns; also spun nylon yarns.

F. G. MONTABERT COMPANY
Paterson, N. J. **82**

L. P. MULLER & COMPANY
Philadelphia, Pa. **58-59**
H. D. Muller
H. G. Harper
J. L. Muller
J. M. Matlack
J. T. Hawthorne
Exhibiting: Cotton yarns.

Class A overseaming machine (Merrow).



OUTSTRIPE YOUR COMPETITION BY 30%

WITH SUPREME'S AUTOMATIC STRIPERS

SUPREME'S STATIONARY YARN STAND = HIGHER KNITTING SPEEDS

Supreme's Stripers combine a high-speed revolving cylinder and take-up with a new, ingenious striping system to give you the World's Fastest Stripers. The stationary yarn stand permits "pig-tail" double tie-ups of yarn cones; use each cone down to the very end. All that, means 30% greater production and trouble-free, long-life operation at continuous, super-fast knitting speeds.

YOU GET 30% MORE POUNDAGE HERE

Think of it: 30% more cloth each hour, day, and week! What's more, it is all top-quality, clear-color cloth. Synchronized "No-Waste" Cutters* eliminate all waste. Clean, lightweight seam minimizes finishing costs... no need to reverse cloth. Use Supreme Stripers to knit your high-grade fabrics at high speed and low cost.

Supreme Stripers are versatile! Supreme Stripers equipped with Automatic Pattern Placers* knit plaids, checks, designs, variable stripes or Pattern Placer cloth all on one machine.

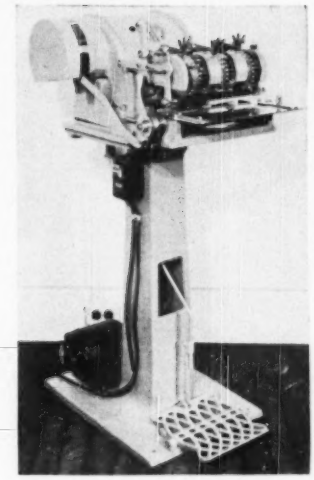
SUPREME
KNITTING MACHINE CO., INC.
107 JOHNSON AVE. BROOKLYN 6, NEW YORK, N. Y.

Out-strip and out-stripe your competition. Investigate the simple and versatile, super-producer Model SA-PP (one of our many models) today. Write for free cloth samples and the booklet "Variable Stripes and Plaids Pay."

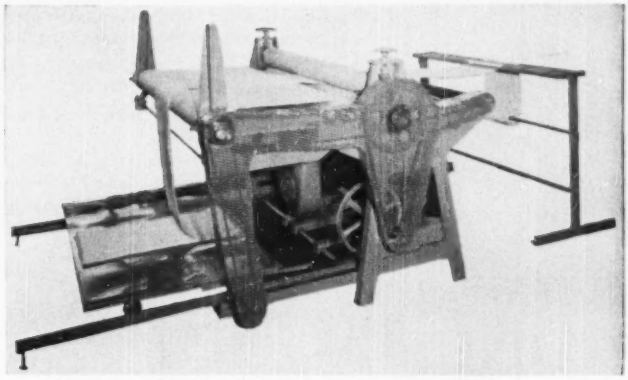
*Patents applied for

SK-129

See Supreme's Stripers and Underwear Knitters at Booth 81, Knitting And Allied Crafts Exposition, 34th Street and Park Ave., New York City, April 24-28, 1950.



Tag marker for payroll piecework tags, etc. (Markem).



Cloth calendering and finishing machine (Pernick).

NEW YORK PRESSING MACHINERY COMPANY
New York, N. Y. 39-40

ORDNANCE GAUGE COMPANY
Philadelphia, Pa. 44

JOSEPH PERNICK CO., INC.
Maspeth, L. I., N. Y. 87

Exhibiting: Cloth turning machine for knit goods, cloth calendering and finishing machine, and a measuring and examining machine.

PREMIER THREAD COMPANY
Pawtucket, R. I. 90

T. F. Mahoney, Pres.
W. R. Mahoney, Vice-Pres.

Exhibiting: A nylon sewing thread called "Neophil," threads made of Orlon, Fiber V, and Jewel brand cotton thread. Finished underwear and outerwear garments will illustrate many end uses of these threads.

QUEENS MACHINE COMPANY
Brooklyn, N. Y. 22-23

Michael Zimic, Prop.
R. F. Lanthier, Mgr.
Anton Miskovsky, Supt.

Exhibiting: A tandem carriage fully automatic Link and Link (purl stitch) knitting machine, a double head flat border machine, a circular string border machine.

ROBERT REINER, INC.
Weehawken, N. J. 50

Dr. Robert Reiner
Fritz Lambach
August Schoenenberg
George Moebius

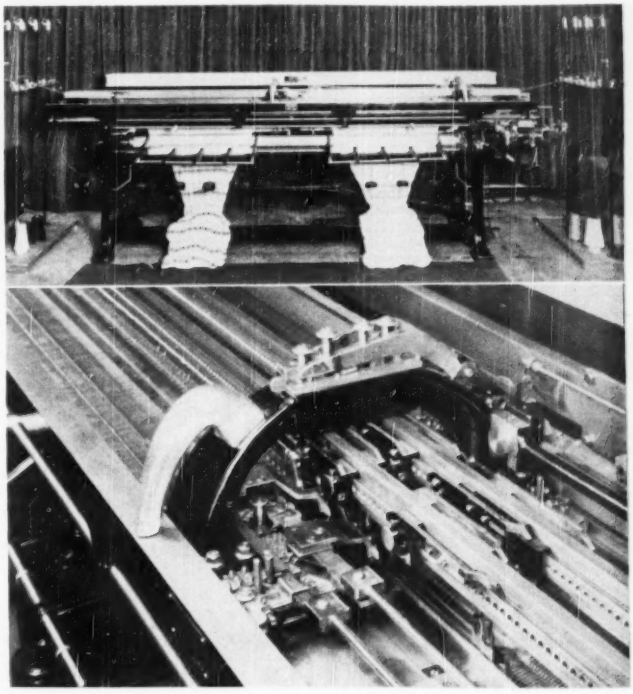
Exhibiting: A 168-inch high speed tricot knitting machine with latest improvements, a sectional warper with the yarn storage device, and a magazine creel section to demonstrate the various types of stop motions available and the use of nylon pirn holders, rayon and cotton cones, etc.

LOUIS RICH MACHINE CORP.
New York, N. Y. 11

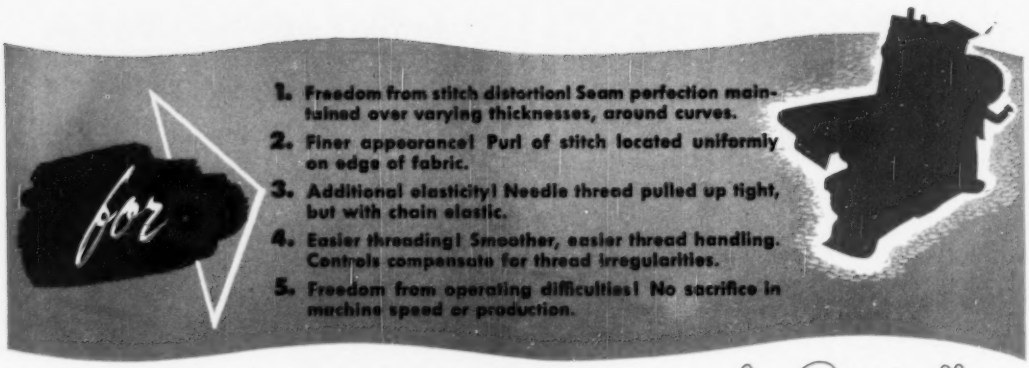
SCHOLLER BROTHERS, INC.
Philadelphia, Pa. 41-42

F. C. Scholler
E. S. Atkinson
L. M. Boyd
H. L. Frost

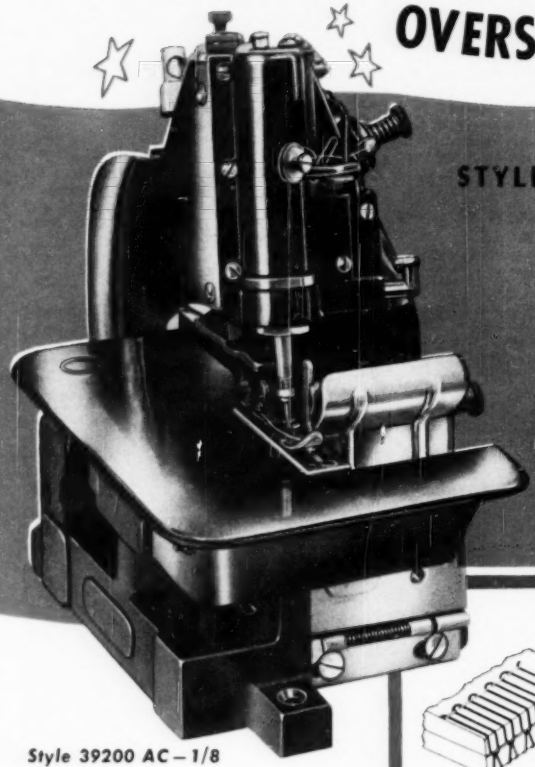
Exhibiting: Samples of products for scouring, dyeing and finishing of nylon, silk and wool hosiery and yarns; also fabrics treated with these products.



Above, full view of tandem carriage full automatic Link and Link (purl stitch) knitting machine (Queens). Below, close-up of knitting head.


for
1. Freedom from stitch distortion! Seam perfection maintained over varying thicknesses, around curves.
2. Finer appearance! Purl of stitch located uniformly on edge of fabric.
3. Additional elasticity! Needle thread pulled up tight, but with chain elastic.
4. Easier threading! Smoother, easier thread handling. Controls compensate for thread irregularities.
5. Freedom from operating difficulties! No sacrifice in machine speed or production.

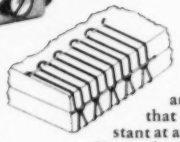
USE THE NEW "Purl-Rite" OVERSEAMING FINISH!



Style 39200 AC – 1/8

STYLE 39200 AC overseamers are now being equipped to produce the new *"Purl-Rite" Finish*, the perfected form of overedging. Combined with the superior performance of Union Special's widely used *Class 39200* overseamers, this improved feature — initially offered in *Style 39200 AC* — means finer finishing for a wide variety of knitted garments. For full details on the new "Purl-Rite" overseaming finish, see your local Union Special representative or write.

IMPROVED QUALITY!



The new "Purl-Rite" finish gives perfect stitch formation, imparting a new beauty and quality to seams. Note that the stitch remains constant at all times and the purl lies uniformly along the edge of the material.

Union Special®

MACHINE COMPANY

407 NORTH FRANKLIN STREET • CHICAGO 10, ILLINOIS

SCOVILLE MANUFACTURING CO.
Waterbury, Conn. 56
W. R. Spearrin, Sales Prom. Mgr.
Exhibiting: "Gripper" fasteners as applied on the new "Super" boxer short, children's knit underwear and sleepers.

SELLERS MFG. CO.
Saxapahaw, N. C. 21

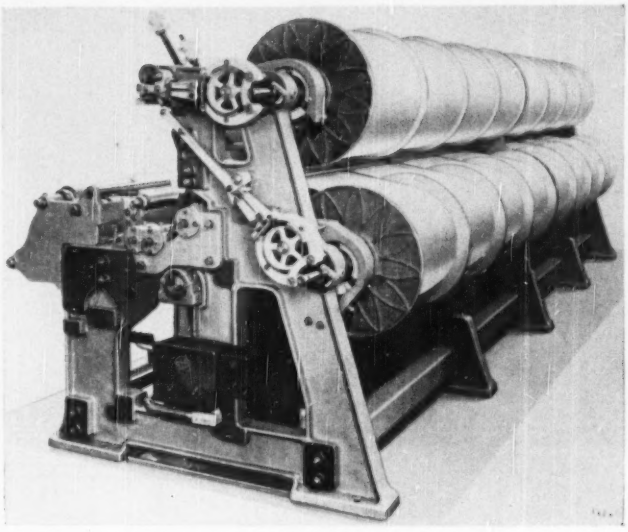
SINGER SEWING MACHINE CO.
New York, N. Y. 78, 79, 89
Exhibiting: Class 246 machines for overedging and other operations on sweaters, slips, etc.; multiple needle Class 247 machine for covering and reinforcing seams on knit goods; Class 253 machine with 11 degree slant arm for better visibility at the needle; 400w30 rotary thread take-up lockstitch machine featuring an adjustable differential feed to provide a smooth, flat elastic seam on knitwear; 300w201 machine with compound feed mechanism fitted for flat elastic insertion operations on gabardine items. In addition, the Class 242 machine for closing operation on full-fashioned sweaters, the Class 212 lockstitch machine with improved compound feed mechanism fitted for taping operations on underwear shoulders and neck, a newly developed tacking machine for knit goods, and cutaway and skeleton models to demonstrate internal machine construction, will be on display.

STANLEY R. STAGER
New York, N. Y. 102
F. S. Krecker
Edward P. Silk
Exhibiting: Samples of worsted and woolen knitting yarns.

STAMPAGRAPH COMPANY, INC.
Bronx, N. Y. 115
George Chadwick, Pres.
George H. Chadwick, Vice-Pres.
C. H. Tatsch, Sales
T. Famigleitti, Sales
Exhibiting: Hot iron transfers (cloth decals) in one, two, and three-color combinations, for marking hosiery, polo shirts, T-shirts, etc. Also embossed seals and labels.

STANDARD-COOSA-THATCHER COMPANY
Chattanooga, Tenn. 31
F. R. Harris, Vice-Pres.
E. S. Davis, Secy.
R. C. Thatcher, Jr., Thread Sales Mgr.
George K. Lewis, Sales Rep.
Charles S. Smith, Sales Rep.
W. S. Lawson, Sales Rep.
J. P. Rickman, Sales Rep.
Wm. M. Hall, Sales Rep.
E. R. Dillmore, Sales Rep.
Exhibiting: Sewing thread and Durene yarn for use in the knitting industry.

STEELE CANVAS BASKET CO., INC.
Newton, Mass. 51
A. E. Pratley, Manager
G. L. Whynaught, Sales Mgr.
Exhibiting: Steel frame canvas baskets, without inside corner seams, specifically designed for the knitting industry.

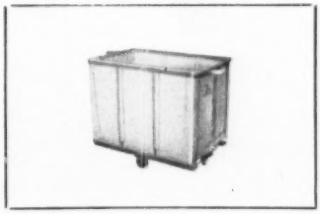


168-inch tricot knitting machine (Reiner).

STOP-MOTION DEVICES CORP.
Brooklyn, N. Y. 72A
N. J. Tellerman, Sales Dir.
F. Weston, Export Mgr.
G. F. Connors, Field Rep.
V. Chaplin, Field Rep.
Exhibiting: Electric stop motions for all types of knitting machines, including press-off detectors, safety controllers, retractible needle protectors, new type single unit combination controllers, knot and end detectors, rubber thread detectors, etc.

SUPREME KNITTING MACHINE COMPANY
Brooklyn, N. Y. 81
Lester Mishcon, Vice-Pres.
Sidney Mishcon, Gen. Mgr.
Irving Golden, Sales Mgr.
Clyde Du Puis, Sales Eng.
Exhibiting: The Model SA-PP Pattern Placer and Automatic Variable Striper which makes variable striped jersey fabrics; the Model SA-ROF Plaid and Variable Stripe Knitter which knits variable or vertical striped jersey, colorful plaids and checks, or wide spaced patterns and designs with the floats tied to the back of the cloth; and the Model MJ high-speed jersey machine for the manufacture of underwear.

Steel frame canvas basket for the knitting industry (Steele).



SURPASS CHEMICAL COMPANY
Albany, N. Y. 64A
Irwin J. Smith, Pres.
J. Harry Atkinson
Exhibiting: Fabrics which have been processed with materials manufactured by this firm.

TEXTILES, INC.
Gastonia, N. C. 6A
A. W. Latta, Sales Mgr.
H. Gray Dolliver, Rep.
Justin Pearson, Sales Rep.
W. T. Rankin, Jr., Asst. Vice-Pres.
Don Maddox, Asst. Vice-Pres.
Exhibiting: Space for visitors.

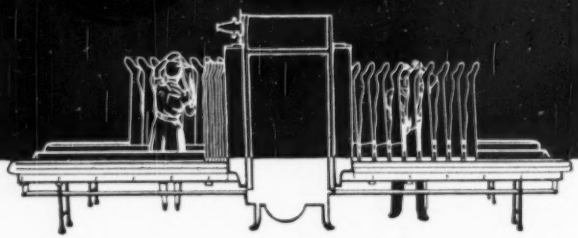
TEXTILE INDUSTRIES
Atlanta, Ga. 10
R. P. Smith, Exec. Vice-Pres.
John C. Fonville, Editor
Paul M. Platzman, Assoc. Ed.
Maynard L. Durham, Bus. Mgr.
W. K. (Bill) Hoffman, Rep.
A. C. (Art) Shaw, Rep.
E. I. Leeds, Jr., Cir. Rep.

TEXTILE WORLD
New York, N. Y. 32

THE TORRINGTON COMPANY
Torrington, Conn. 43
C. T. Spalding, N. Y. Mgr.
W. R. Reid, Jr., Sales Mgr., Needle Div.
Exhibiting: Latch needles of all types; also needle bearings for the textile industry.

TRIM-KNIT, INC.
New York, N. Y. 75

Answering the Challenge of . . .



Look at the new developments in Nylon—the crimp-setting of Nylon staple, the steam-setting of Nylon sweaters, the static-free finish boarding of 60-gauge Nylon hosiery . . . With each new development, Turbo works with the leaders of the Textile Industry to build a precision-engineered machine to do the job. Here are a few examples:

(1) On crimp-setting Nylon staple, Turbo worked with duPont in the designing of the first practical mill installation. This machine is now in production—delivery about 60 days.

(2) On steam-setting of Nylon sweaters, Turbo worked with leading manufacturers to develop a completely automatic machine with every detail of steam pressure, temperature and steaming time under precise control. Installations now being made, with further improvements under study.

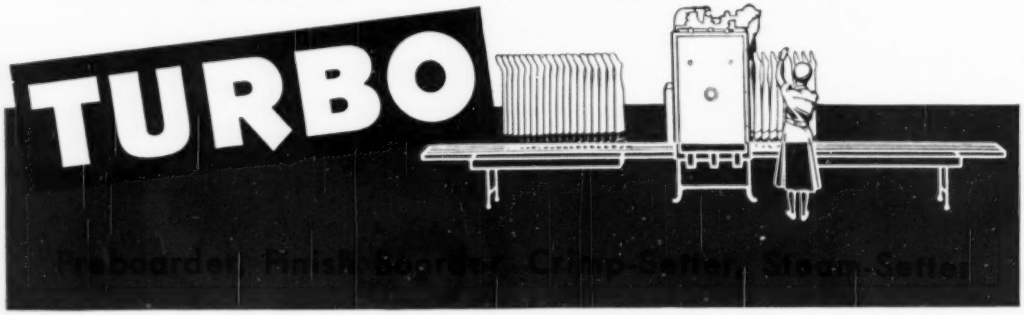
(3) On fine denier, fine gauge Nylon hosiery, the Turbo Finish Boarder produces static-free stockings, perfectly finished, in 60 to 90 seconds. Production is 250 dozen pairs in 8 hours with two boarders. Four groups of 12 forms each—you can run four sizes at one time. No service employee required to straighten piles.

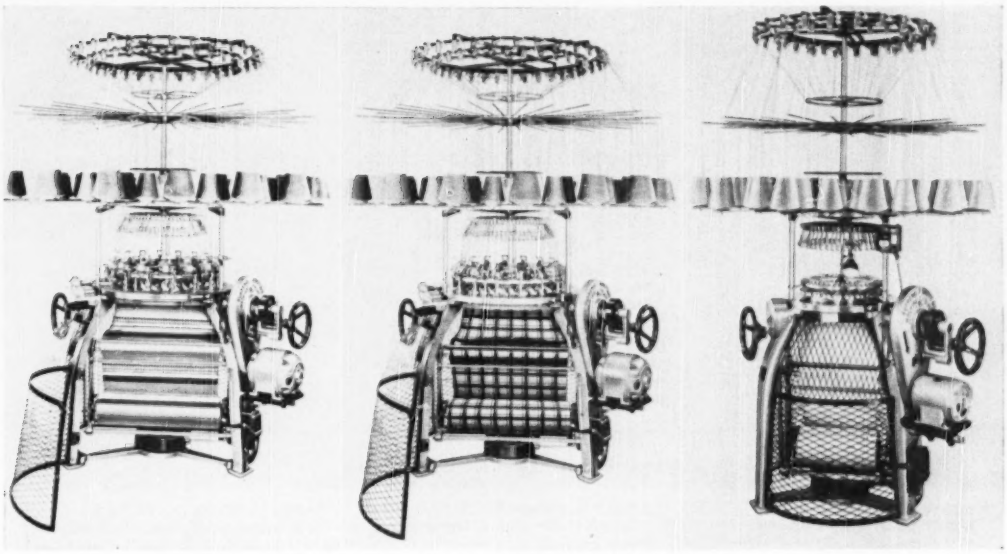
(4) On half-hose, you can use your present Turbo Machines—Preboarder, Finish Boarder or VD-48. Leg forms can be changed in a matter of seconds by operating a simple clamp.

Turbo Machines are completely automatic, quiet in operation, high in productive efficiency, equipped with instantly interchangeable leg forms . . . yet gentle as a lamb with your finest fabrics. If you want to find out about increased production and better profits with Turbo Machines, write us today.

TURBO MACHINE COMPANY, LANSDALE, PA.

SOUTHERN OFFICE: F. W. WARRINGTON CO., CHARLOTTE, N. C.





Supreme knitting machines: left, 24" Model SA-PP; center, 24" Model SA-ROF; right, 15" Model MJ.

TUBULAR TEXTILE MACHINERY CORPORATION
Woodside, L. I., N. Y. **71A**
Eugene Cohn
John Sasson
Don Foreman
Exhibiting: Schematic layouts of Tube-Tex machines, including: wet spread and extract; wet spread, extract and process; wet spread, extract, process and dry; steam and calender; matching machine.

UNION SPECIAL MACHINE CO.
Chicago, Ill. **46**
T. S. Whitsel, Gen. Sales Mgr.
L. M. Brown, Prod. Appl. Mgr.
A. J. Feigel, Sales Prom. Mgr.
W. E. Palm, Branch Mgr.
B. W. Merz, Branch Mgr.
C. L. Rosenquist, Branch Mgr.
E. S. Rockney, Asst. Branch Mgr.
J. R. Haderly, Rep.
E. J. Yowell, Rep.
H. K. Lanning, Rep.
W. J. Chrobet, Rep.
Exhibiting: A Style 39200 AC machine for seaming the lighter weights of flat knit, warp knit and ribbed knit fabrics; a Style 39200 AV machine for blindstitch hemming. Of interest to manufacturers of knitted outergarments requiring cover seaming will be the Style 11900 K machine which is especially designed for performing the second part of the two-operation covered seam. A Style 19300A machine will also be shown for hemming necks and armholes of swim suits and knitted outerwear. Three styles of flat bed machines will be on display: the 52800 T machine for attaching knitted tubing and previously made lace to knitted undergarments; the 52800 P machine for attaching split tube borders to neck and arm holes of athletic suits; and the 52700 C machine for attaching split tube borders to knitted outerwear.

UNITED ELASTIC CORPORATION
Easthampton, Mass. **57A**
Raymond A. Waite
Walter E. Dalby
Frank L. Door
Edgar F. D. Bergmann
Ernest R. Boehm
Henry V. Vernet, Jr.
Harry L. Thompson
Hugh A. White
Exhibiting: Elastic webbings and braids.

UNITED STATES RUBBER COMPANY
New York, N. Y. **29**

UNIVERSAL STEEL EQUIPMENT CORP.
Long Island City, N. Y. **8**

FRANK URISH
Flushing, N. Y. **92**
Frank Urish
Samuel Maccagnano
Exhibiting: The "Glomarker" button and buttonhole marking machine for simultaneously marking all buttons and buttonholes on the fronts of coat type garments. Generally the ends of both fronts are held together between the hands in the machine. The foot-pedal is depressed and the garment is then completely marked with fluorescent crayons which, with the aid of "blacklight" lamps, are visible on all colors.

UTICA NOVELTY & MILL SPECIALTY COMPANY
Utica, N. Y. **20**
Joseph A. Firsching, Jr., Owner
Joseph A. Firsching III
Donald Firsching
Exhibiting: A hand laying up machine and combination cutting and winding machine with 12-inch diameter knife.

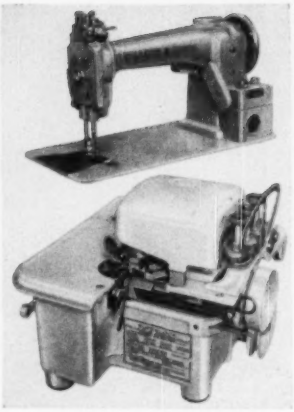
VALDESE MANUFACTURING CO.
Valdese, N. C. **25**

VICTORY CONTAINER CORP.
New York, N. Y. **34A**

WILLCOX & GIBBS SEWING MACHINE COMPANY
New York, N. Y. **83**
Arthur Miller, Sales Mgr.
Norman Wonnacott, Gen. Sales Mgr.
C. H. Haviland, Sales Eng.
E. C. Ferguson, Asst. to Gen Mgr.
J. C. Nelson, Asst. to Gen. Mgr.
F. A. Snyder, Branch Mgr.
H. F. Keegan, Sales
J. Kennedy, Sales
L. E. Sichel, Sales
J. Kropf, Sales
A. E. Selby, Branch Mgr.
L. E. Connolly, Asst. Br. Mgr.
J. H. Grace, Branch Mgr.
J. E. Mattson, Branch Mgr.
G. E. Haynes, Asst. Br. Mgr.
F. Taglang, Asst. Br. Mgr.
E. F. LeFevre, Branch Mgr.
Exhibiting: The recently introduced Type 1101 machine for sleeve setting or lap seam felling operations on garments made of light or medium weight fabrics; also a completely new high speed automatically lubricated chainstitch

machine, Type 1201, which can be used for seaming and hemming neckwear and attaching labels to underwear, etc. In addition, the following machines will be on display: Type 803-C-15-1 for three-thread seaming light weight knit underwear; Type 803-C-13 for three-thread continuous and intermittent ruffling and sleeve setting operations; Type 300-B for flat seaming operations on knit underwear; Type 10-A for single needle plain stitching operations; Type 24-B for producing ornamental scalloping effects on lingerie, etc.; Type 700-B for lap seam felling operations; Type 992-XX-23 for button-stay and facing on knit underwear; Type 950-ACWS for elastic attaching operations on underwear; Type 958-CEDD for attaching split tubing to necks and armholes of knit underwear; Type 958-C-E-2 for attaching cut border to fronts of sweater coats; Type 928-G-C-2 for button-stay, facing or banding on knitted fabrics; and Type 994-W-10 for attaching flat elastic to boxer shorts.

WILLIAMS LAUNDRY MACHINE COMPANY
Long Island City, N. Y. 84
Stanley Maurer
Herbert Maurer
Jerome Maurer
Exhibiting: Equipment for washing, drying and processing all types of knit goods.



Right: above, Type 1201 machine; below, Type 803-C-15-1 (Willcox and Gibbs).

Exposition Advisory Board

Agnew H. Bahnson
Washington Mills Company

Edwin I. Bamberger
The Bamberger-Reinthal Co.

Ingram Bergman
Bergman Knitting Mills

A. Paul Cohen
Suffolk Knitting Company

Howard M. Collier
Griffin Knitting Mills

R. C. Collier, Sr.
Montezuma Knitting Mills, Inc.

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Milton Davis
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Oscar W. Fishel
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Spring City Knitting Company

Sherman P. Haight
E-Z Mills, Inc.

P. H. Hanes
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Sam B. Hyman
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Edwin A. Kalfahs
Jersild Knitting Co.

Coy C. Humphrey
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J. Lee Lesher
Bestok Underwear Company

Arthur M. Lowenthal
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David M. Titelman
Puritan Knitting Mills

Rudolph H. Wyner
Shawmut Woolen Mills

C. R. Zehntbauer
Jantzen Knitting Mills

Full-Fashioned Hosiery Not Properly Marked

According to reports from mill men, some full-fashioned mills are stamping 45 gauge hosiery as 51 gauge and selling it to the retailer as such. This is in violation of the FTC ruling, and if the practice continues, other marginal mills may follow suit, thereby causing additional distrust among consumers and retailers.

One retailer was selling the hosiery as 51 gauge goods at reduced prices. When a local manufacturer questioned the validity of the stamp, the retailer said that he was not responsible for the mill malpractice; however the retailer is responsible for properly representing the goods he sells, regardless of whether he stamps the hosiery or not. In this instance, although the retailer claimed innocence and pleaded ignorance to the facts, there may have been collusion between the retailer and the manufacturer.

Left, empty boxes are being loaded on the conveyor at the second floor for transport to the mill's finishing departments. Moving along at 4 to 20 feet per second, pallets are 4 feet apart. Center, finished merchandise from the manufacturing division is loaded onto the continuously moving trolley on the fourth floor. Right, a warehouse clerk unloads stock arriving on the conveyor at the second floor of the store room. Merchandise is immediately binned adjacent to the trolley route.

Assembly Line Principle Utilized in Knitted Outerwear Plant

Staff Prepared

EXCLUSIVE

PRODUCTION at the Puritan Knitting Mills, Inc., Altoona, Pa., is routed along 1970 feet of continuous welded steel channel. Employing assembly line theory, goods are transported on 490 specially constructed pendant type containers suspended from a driven roller chain within the channel. Each container is capable of carrying 65 pounds or 6 to 10 boxes of finished goods.

Winding serpentinely from loading level to ceiling height, from floor to floor, and from building to building, this unique system services over 185,000 square feet of plant space in Puritan's four-story manufacturing building and two-story warehouse. What has been achieved for this multi-storied mill covering over one and one half city blocks is a simplicity of flow characteristic of single story buildings.

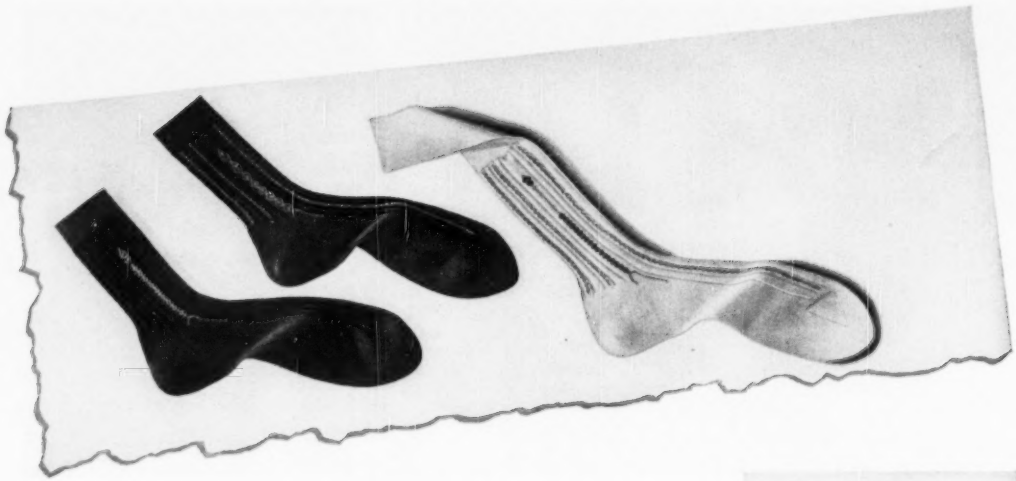
The manufacturing building contains two separate processing divisions; one for all cut and sewn sportswear and the other for knit goods. The warehouse centralizes all stock and shipping. General offices are located in a small third building connected to the warehouse. Conveyors and chutes unify the entire plant now and equipment has also been realigned to derive maximum utility from the integrated system.

"Zig-Zag" System. The first of two connecting conveyors in the network is an overhead trolley designed primarily to carry the finished goods from both finishing departments to the stock room. It is the "Zig-Zag" type manufactured by Richard Wilcox Co., and engineered by the staff of Puritan in collaboration with their consulting engineers, Douglas M. McBean, Inc., of Rochester, N. Y.

This conveyor is driven by four ¾ hp synchronous variable speed motors distributed throughout its length. A master control permits speed variations from 4 to 20 feet per minute. Pendent pallets are dispersed at four-foot intervals.

One of the cardinal features distinguishing this installation is its flexibility. Because of it, the

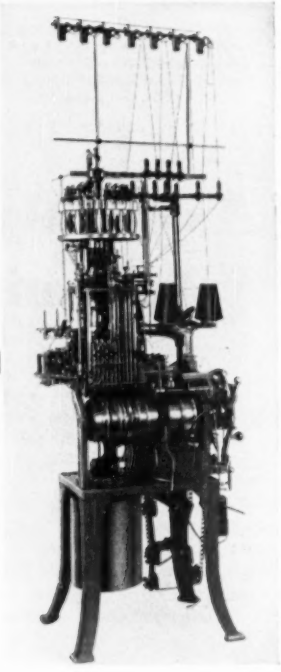
Three of the many interesting Komet Wrap-type patterns now obtainable on the new Komet Wr. Machine. Note combination of Komet ribs with clocks; also, all-around embroidered patterns combined with clocks. Elastic-top slacks illustrate fabric evenness achieved with the new Rubber Furnishing Device.



For embroidered clocks and wrapped patterns on Komet broad ribs in a single knitting operation

the New Scott & Williams

KOMET WRAP MACHINE



The new Scott & Williams Komet Wrap Machine produces an infinite variety of embroidered clocks and wrapped patterns *in a single operation.* Thus you can offer hose with the well-known broad rib advantages, plus all the color and proven appeal of wrap patterning.

Here is another Scott & Williams development that provides opportunities for new business and new profits.

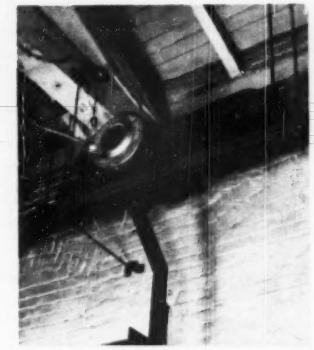
Ask your Scott & Williams representative for samples of hosiery and complete details on the new Scott & Williams Wrap Machine.

S&W

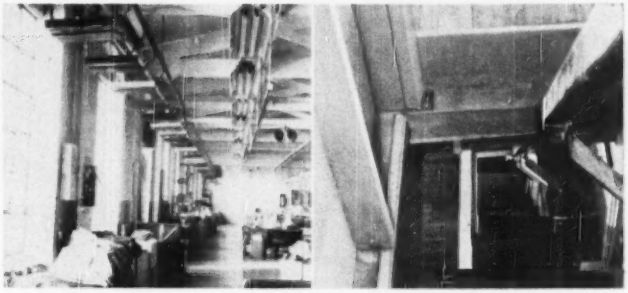
SCOTT & WILLIAMS, INC.

Established 1865

Sales Office: Empire State Building, New York 1, N. Y.
Divisional Offices: High Point, N. C., Reading, Pa., Chattanooga, Tenn.
MAIN OFFICE AND PLANTS: LACONIA, NEW HAMPSHIRE



One of the four synchronous variable speed, ¾ hp motors which drives the system.



Left, the trolley system travels at ceiling height through sections of the mill not serviced. Although empty in this photograph, these pallets provide an enormous amount of space for storage. Right, opening through which conveyor passes as it changes levels in descending from the fourth floor to the second.

adaptation to Puritan Knitting Mills' existing plant facilities was relatively simple. Obstacles which otherwise might have had to be relocated were by-passed. The unit was erected without any interruption of production.

On the fourth floor of the manufacturing building is the first loading station. Here, all cut and sewn garments produced on this floor are loaded onto the pallets for ultimate delivery to the stock room. Next station along the conveyor's route is the finishing department on the second floor where all finished knit goods products may be loaded.

The merchandise is then transported from the building via a ramp to the warehouse stock room where it can be unloaded into bins along the entire length of the south wall of this building.

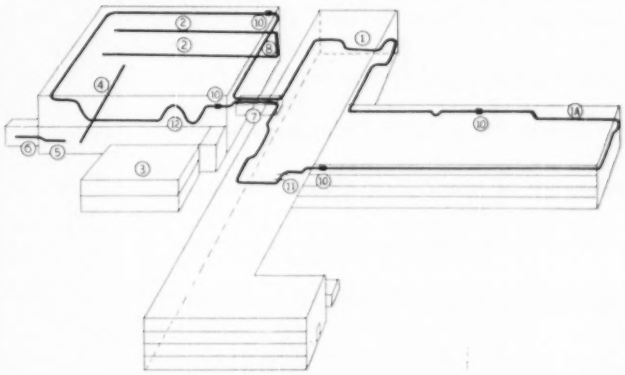
The empty pallets are then ready to return to the fourth floor. However, they are first transversed through the second floor storage area where they are loaded with empty boxes which are delivered to the finishing departments.

At times, the moving pallets serve as storage space for items which are obstructing floor space. These items may make a circuit of the system several times until required in production. The trolley is kept continuously running for about six hours daily.

The use of the "Zig-Zag" permitted Puritan engineers greater freedom in plant layout since they were not restricted to locating the last manufacturing operations as close as possible to the stock room. The very fact that one of the finishing departments could be located most ideally a full city block from the warehousing space was the compelling reason for deciding on this conveyor.

Since the conveyor is essentially overhead, a substantial savings is realized in floor space and the necessity for hand trucking

Simplified Diagram of Puritan's Conveyor System

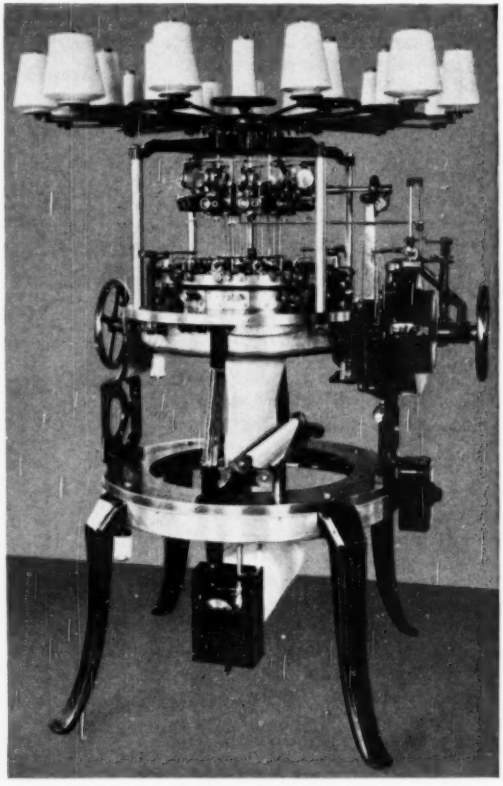


Key to Numerals

1. Finishing and loading 30′ height on 2nd floor
1A. Finishing and loading 30′ height on 4th floor.
2. Level rolling conveyors—stock room.
3. Office.
4. Level rolling conveyor—packing.
5. Level rolling and power shipping.
6. Level rolling—shipping platform.
7. Bridge over street.
8. Lowerator in stock room.
9. Receiving station.
10. Syncro-drive units.
11. Conveyor rises or drops through two floors.
12. Conveyor rises over elevator door.

ITS KEYNOTE IS VERSATILITY

Let this Wildman machine sing a song of better *style*, better *quality* and better *volume* in your plant, now! No matter what you knit, from bathing suits to the finest dress and underwear fabrics, it gives you exactly the style and gauge you need. Uniformity of fabric is a natural result of its even tension yarn feeding—its extreme versatility gives you fashion opportunities you never thought possible. Many other advantages we'll tell you about.



THE WILDMAN MFG. CO., Norristown, Pa.

through manufacturing areas is virtually eliminated.

Stock Picking System. The second conveyor system in operation is designed for picking and shipping orders. It consists of 470 linear feet of 18-inch free-rolling gravity type conveyor. This conveyor is located along the north side of both floors of the warehouse building. Standard Conveyor Co. designed and fabricated the stock picking apparatus.

A straight line flow between the first and second floors of the warehouse is obtained by utilizing a completely automatic electrically operated "lowerator," consisting of an automatic power driven section of feeder conveyor and a series of electric eyes to control the movement of merchandise.

Stock picking has been simplified through the use of this conveyor by permitting the allocation of the responsibility for merchandise in a limited number of bins to each stock picker.

The shipping orders are placed on pallets and moved from one stock picker to the next along the free rolling conveyor. As the pallet progresses down the conveyor, each man adds to the order where required from the merchandise available to him. Additional pallets are added as necessary and the orders are picked accurately and rapidly as they proceed through the two floors.

In filling orders, picked stock is placed on free-rolling gravity type conveyor before transit to the shipping section at the end of the line.

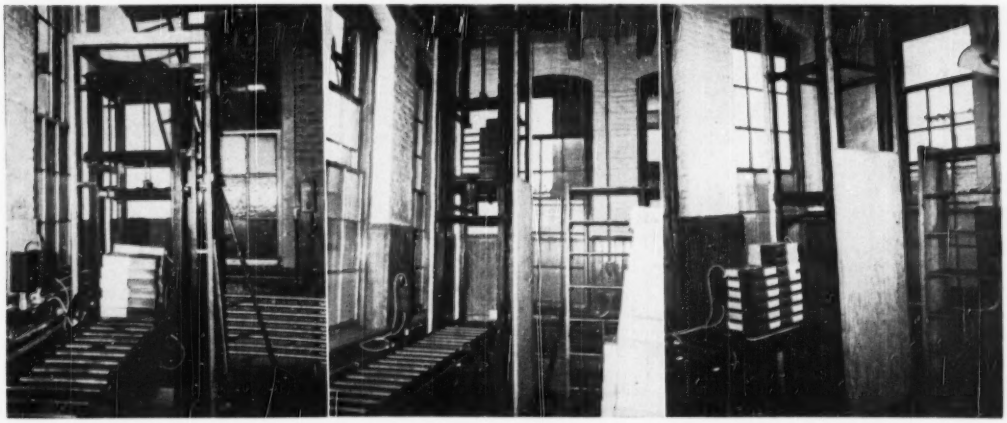
At the end of this conveyor, the order is checked and removed for packing and shipping. Here again the roller conveyor plays an important role in this streamlined technique of materials handling. The merchandise is loaded into cartons and placed directly on another set of rollers. As soon as the carton is sealed, it is moved down this set of rollers to the scales for weighing and addressing.

The package then is moved over a series of free-rolling conveyors and hoisted to the shipping platform by a section of power conveyor, where it is delivered directly into hauling vans by another section of conveyor.

Sound Program. These conveyor systems are part of the expansion program officials of Puritan Knitting Mills laid out several years ago. Work in this direction has been progressing steadily ever since, and is apparently paying dividends.

The management recognized the

Left, electronic eyes control every motion of the Lowerator, safeguarding against accident and damage as goods start on their journey downward. Center, palleted stock rides an automatic Lowerator from second to first floor in a link providing uninterrupted flow of goods. Right, the pallet is automatically ejected from the Lowerator and guided along a power driven section of feeder conveyor located on the first floor.



fact that modernization of plant layout is not merely a matter of securing the best possible machine-to-machine flow. They feel that the large, but frequently hidden, costs of handling in the knitting industry represents one of the greatest opportunities for cost reduction and greater efficiency.

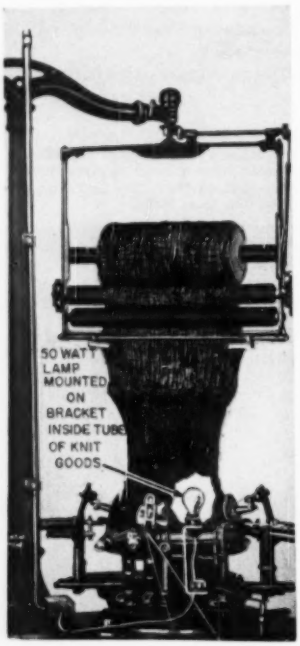
In addition to this, other advantages such as improved working conditions and savings in floor space have convinced them that their program has been a sound one and should be expanded wherever practical.

It is worthy of note that employees of the plant raised no objection to this installation. In general, they have evaluated it much as their management has. More than effecting economies for management, the system has contributed to higher productivity in some cases and certainly augmented their security by placing the plant in a better competitive position.

Inspection Lamp Helpful on Spring Needle Work

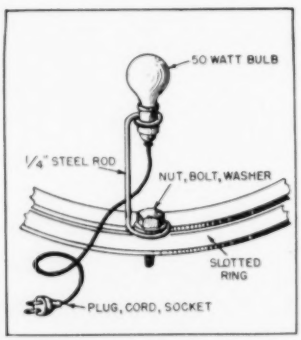
EDITOR TEXTILE INDUSTRIES:

An inspection lamp mounted on the inside of circular spring needle knitting machine cylinders, below the spreader and above the needles, will help locate and keep defects down to a minimum.



We have used the device with satisfaction on our Tompkins Bros. machines which are running heavy overcoating cloth. Each of these machines has had conduits and plug receptacles installed. Conduits for electrical wiring run from ceiling outlets and are fastened to the machine's column. The plug receptacles are attached to the base of the column.

An extension cord from the receptable connects with a lamp socket holding a 50-watt Mazda bulb. The socket is mounted to the machine's slotted ring by a simple bracket made from ¼-inch steel rod. The bulb is positioned so that a number of courses above the needles on a horizontal plane with presser wheels is silhouetted by the light.



With this handy aid we manage to maintain quality in the overcoating material. Most knitting imperfections are brought into sharp focus by this background illumination. Holes and dropped stitches appear brilliantly outlined.

CONTRIBUTOR NO. 8226

2-Piece to Oust Union Suit?

Among distributors of staple heavyweight underwear, it is asserted by some that a trend has set in which, if continued much longer, may render the time-honored, winter-weight knitted union suit obsolete as far as ordinary consumer acceptance is concerned.

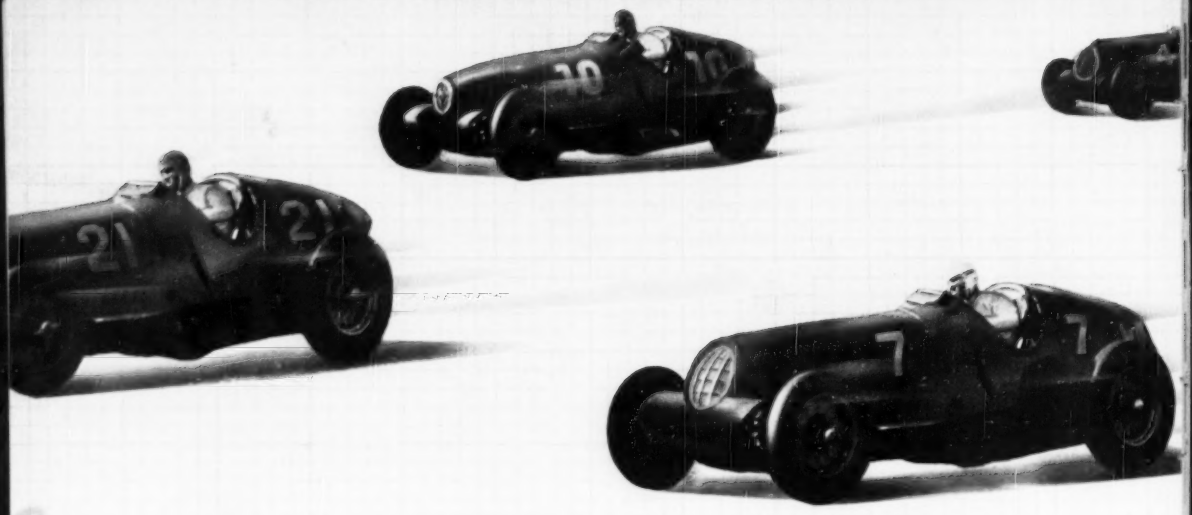
It is contended that in order to conform to consumers' preference for one-piece garments, the knitters should henceforth adjust themselves to "tailoring" their output, leaning more or less heavily on reports of the kind of heavyweight goods most readily disposed of by the mail order concerns, variety chains and department stores.

It is added that this condition follows naturally after the trend noted years ago toward using lighter - weight undergarments (women have already carried this to far greater lengths than the men). Eventually, it is claimed, this trend will eliminate most of the output of 12, 14, 16 and 18-pound garments, in favor of 8, 10 and 12-pound merchandise. In view of past developments in this direction, from the consumer standpoint, it is said to be remarkable that production in this country of the "old fashioned" underwear still remains as large as officially reported.

Among reasons given for the gradual—but persistent—discarding of heavyweight goods of nearly all kinds (including home furnishings and outerwear) are these:

Greatly improved heating fa-

In each of these
ESSENTIAL PARTS...
Torrington assures quality and uniformity by precision machine manufacturing methods.
THE TORRINGTON COMPANY, Torrington, Conn., U. S. A.
Established 1866
Branches: New York • Philadelphia • Chicago • Greensboro, N. C. • Boston • St. Louis
Toronto, Canada • Pacific Coast Representative: E. G. Paules, 1762 West Vernon Ave., Los Angeles 37, California. Broadgate House, 7-10 Eldon Street, London E.C. 2, England.
TORRINGTON
SPRING BEARD NEEDLES • SINKERS • DIVIDERS • SPLIT DIVIDERS



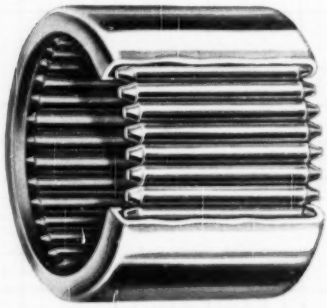
at high speeds...

Torrington Needle Bearings insure stamina

6,000 . . . 8,000 . . . 10,000 and as high as 15,000 rpm are among practical operating speeds on many outstandingly successful Torrington Needle Bearing applications.

The low coefficient of starting and running friction of compact Needle Bearings assures more efficient operation and contributes to longer service life in many high-speed installations.

In planning a new product or re-designing an old one, investigate all the features you can gain through the use of Needle Bearings. Our engineering department will provide full cooperation on any anti-friction bearing problem.

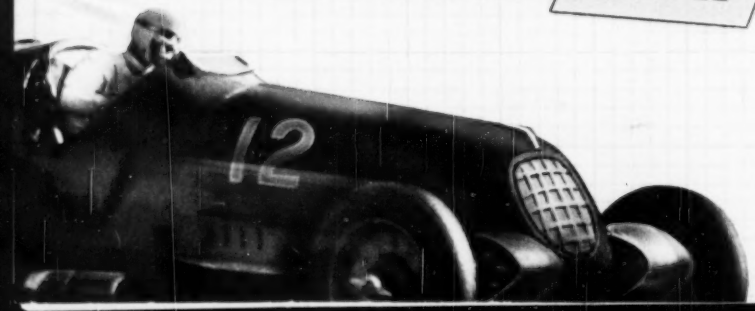


THE TORRINGTON COMPANY

Torrington, Conn. • South Bend 21, Ind.

District Offices and Distributors in Principal Cities of United States and Canada

TORRINGTON *NEEDLE* BEARINGS



NEEDLE
SPHERICAL ROLLER
TAPERED ROLLER
STRAIGHT ROLLER
BALL
NEEDLE ROLLERS

cilities in homes, offices and factories throughout the country; growth of urban population compared with farm communities; introduction of efficient heating units for automobiles and the drivers' cabs of motor trucks; more rapid removal of industries to the South; and more general consumer reliance for cold weather protection on light-weight outwear garments, specially devised from materials that seldom were employed for such uses prior to the late war.

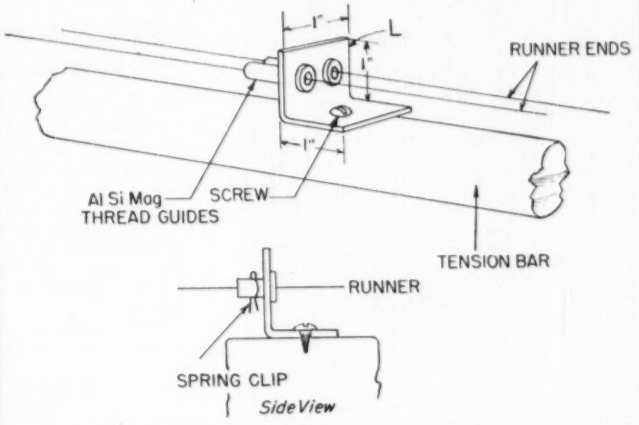
Some of the more alert knitters of prewar style heavyweights, it is added, who formerly operated the year 'round on staple knitwear, have since the war converted considerable of their production to lightweight athletic goods and seasonal novelty items. Others, however, continue to feel that the demand for heavyweight ribbed goods has just about reached its nadir, so that a sound core of permanent business in this item could be counted on.

PERMANENT TRICOT TENSION BAR THREAD GUIDES

Setting the quality of tricot knit goods, by observing the travel of top and bottom beam runners in relationship to the output per rack, is aided through a set of permanent runner yarn thread guides. The thread guides, mounted along the tension bar, are located at the selvage ends and at appropriate intervals between.

Guides are constructed of tin sheet shaped into an L. The upright portion of the L is bored to receive two AlSiMag thread guides side by side, and the horizontal section is bored so that the device may be bolted to the tension bar.

The AlSiMag guides are kept in place by a lip on one side and a spring clip fitting into a groove on the other side of the L's upright.



Vacation Apparel Outlook Good

The penchant among the public in this country for making the utmost of opportunities for out-door recreation in spring, summer and early fall, is expected this year to bring retail sales of swim suits, athletic goods and vacation novelties up to a dollar-volume postwar peak. Manufacturers planned for this, partly on the basis of experiences during the summer of 1949 when a great many re-orders were received from distributors, long after the normal period for such business.

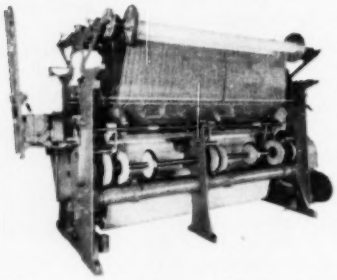
At mid-year, it is explained, numerous distributors figured they had overestimated their summer requirements and there were some cancellations in various lines. By the end of July, however, in some parts of the country retail stores had sold themselves out of popular numbers and were clamoring for replacements. Even shortly before last Labor Day, manufacturers were still shipping vacation goods to some stores.

This year it is expected that retail outlets will have their main stocks better assorted and their replacement business will be more timely. In some directions, the latter part of the vacation season in 1949 caught a number of manufacturers "off balance," because they believed the slow retail movement during spring would be continued through until fall, and accordingly they curtailed production. Some manufacturers in August had to go up from two days a week to full time, and also begin work on initial production for their early fall orders.

The showing thus far in 1950 embraces plenty of attractive novelty merchandise, together with new and better adaptations of standard models, with employment of different materials in some instances, and often with added touches in the styling and workmanship. It is expected this will fit in with the mood of consumers to make good use of the favorable weather during the vacation period, by seeking new surroundings and availing themselves of complete recreation.

Vacation savings among the public, according to recent compilation, are greater now than a year ago. Also, many more workers this year will enjoy paid vacations. In addition, more people than ever before are thought likely to set a higher value on leisurely vacation jaunts to localities remote from home, which this year are getting more widespread promotional attention.

Make any of these FABRICS?



Then Investigate The Kidde Knitter!

More Versatile! Greater Production! Cuts Costs!

All of these fabrics, and others too, can be produced at substantially lower costs on the KIDDE KNITTER than on prewar Raschel machines. Several mills operating KIDDE KNITTERS have reported that they can sell profitably at prices that are lower than their labor and material cost alone using old style machines.

Lower costs result from the higher operating speeds of the KIDDE KNITTER. Rugged construction, a new motion on the needle bar and an improved drum drive, are a few of the features of the machine that step up production.

Write today for literature and see how the KIDDE KNITTER can cut your production costs.

KIDDE MANUFACTURING CO., INC.
BLOOMFIELD, NEW JERSEY

Improvised Needle Detector

By JAMES H. BLORE

This item was declared the winning entry in a recent kink contest. For announcement of current contest see page 243 in this issue.

EXCLUSIVE

Broken needles, large slubs, lose fabric, press-offs, and broken butts cause detector needle to actuate electric stop motion.

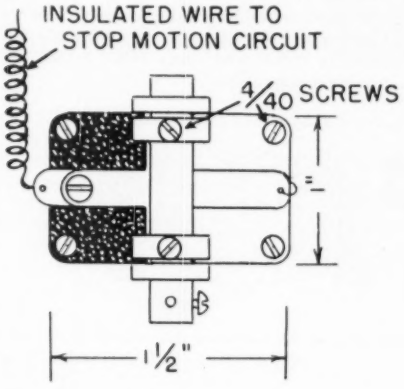
AN effective needle detector for latch needle rib machines (fitted with electric stop motion for yarn) can be made in the mill shop. The device is helpful in detecting loaded needles, needle breakage, and reducing seconds and press-offs before excessive damage has been done.

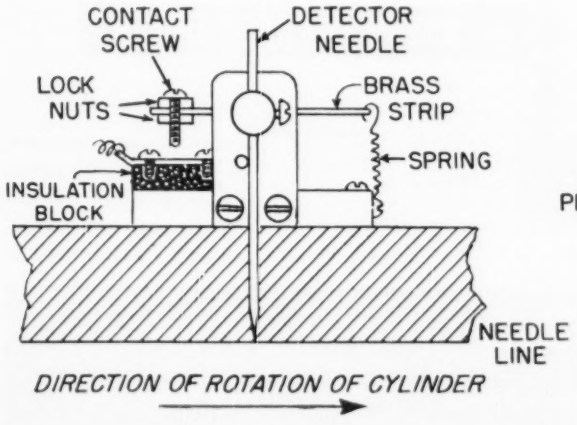
As shown in the accompanying illustrations, the base of the device is made of mild steel, 1" x ¼" x 1½". Four ⅛" holes are drilled in the base to accommodate the screws which are used to attach the device to the edge of the dial cam plate where the needles are in level position. The location is adjacent to the dial knock over.

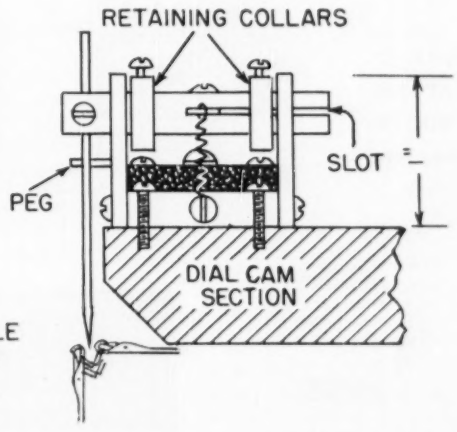
Two brackets (1" x ½" x ⅛") are located at the center of each side, lengthwise of the base. The brackets serve to support ¼" round steel shaft. The shaft is 1¾" long and has a slot extending to the center to receive a brass strip 1½" x ¼". The strip is held in place by a screw and has a small hole in one end through which a very light tension spring is attached. A 1/16" hole is drilled through one end of the shaft to receive the detector needle.

The needle is made from a 2" piece of 1/16" steel rod sharpened to a point at one end. A screw through the shaft holds the needle in place, and the shaft is retained by two collars which are held in place by two screws, thus allowing for horizontal adjustment. The insulating block measures 1" x ½" x 3/16" and may be fashioned from Bakelite or plastic.

The screws in the brass contact







ANOTHER "STIENEN" ACHIEVEMENT

THE

Stienen

Reg. Trade Mark

RAYON AND ACETATE PACKAGE DYEING MACHINE

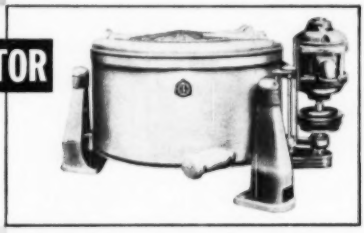
has been developed to supplement our Rayon Cake Dyeing Machine. It provides the dyer of rayon yarns with far greater flexibility.

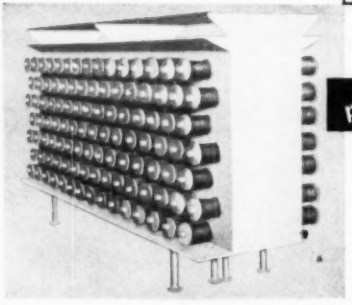
While our Rayon Cake Dyeing Machine has its distinct advantages for certain mills, the "Stienen" Rayon Package Dyeing Machine is of utmost importance to the entire rayon processing trade.

Package dyeing of rayon is ideal wherever the source of supply is in wound form. Rayon from any size cakes, cones or tubes may be dyed in the package form. Different types of rayon and synthetic yarns may all be dyed in this machine.

The cost of rewinding to the package for dyeing is negligible in comparison to the cost of skein winding. Quality of the original yarn is maintained, as no fibre disturbance takes place in our method of rayon package dyeing.

plus A NEW CENTRIFUGAL EXTRACTOR





plus RAYON PACKAGE DRYER

VISIT US AT OUR BOOTH No. 117C

BUILDERS OF

Cotton and wool dyeing machines
for beams • packages
raw stock • skeins • rayon cakes
dye spindles • perforated tubes
centrifugal pumps • extractors and dryers

AUSPICES OF
AMERICAN TEXTILE MACHINERY EXHIBITION
ATLANTIC CITY
MAY 8-12 1950
TEXTILE MACHINERY MANUFACTURERS

Patented & Patents Pending

Standard Fabricators

INCORPORATED

355 Walton Avenue • New York 51, N. Y.

strip should not penetrate to the metal base plate, thereby permitting an electrical contact which will stop the machine. A rubber covered wire is attached to this strip and to a suitable connection on the stop motion circuit to activate the stop motion when the screw touches the contact strip. When the electrical contact takes place the belt shipper is thrown off to stop the machine.

Electrical connections should be soldered to assure positive contacts. The brass strip is drilled to receive the contact screw in one end and the tension spring in the other end. The spring is held by a screw in the base plate, and serves to prevent vibration which may cause contact to be made.

The contact screw should be held by lock nuts. This screw is adjustable and should be set as close to the contact strip as possible without making contact when the detector needle is in its vertical position against the peg. No. 4/40 screws may be used throughout.

The detector needle and shaft should be adjusted until the point of the needle is located as close to the fabric between the needles as possible without actually touching either the fabric or the needles. A broken needle, large slub, loose fabric, press-off, broken butt, or other damage will cause the detector needle to pivot from its vertical position, causing the contact screw to complete the electrical circuit, thereby stopping the machine.

On large machines, three or four of the stop motion devices can be placed around the dial cam plate at appropriate locations to insure instantaneous shut-off at the point where trouble occurs. If several units are used, they should be connected to the stop motion circuit through the first unit, thereby simplifying the wiring.

The increased use of electrically operated stop motions to obtain more efficiency has had an influence on the operatives. Knitters are likely to rely excessively on the stop motion. In case of a power failure in the stop motion circuit, considerable damage may be done before it is discovered; therefore it is desirable to connect the stop motion transformer to the same circuit and switch that controls the motor which drives the line shaft.

General Program for Hosiery Meetings Outlined

The National Association of Hosiery Manufacturers will hold its 46th annual meeting on Monday morning, May 1, at the Claridge Hotel in Atlantic City, N. J.

The activities of the past year will be reported and plans for future activities discussed. Earl Constantine, president of the Association, will render his annual report. Nominations for persons to be elected to the board of directors to fill those vacancies which will occur under the by-laws will be presented and acted upon by the members present.

With the usual luncheon at noon on the same day, the 13th annual Hosiery Industry Conference will open. This conference will continue through the following day.

Subjects of broad interest to hosiery industry executives will be dealt with at the opening session on Monday afternoon. On Tuesday morning, May 2, three divisional meetings will be held, one each for manufacturers of women's, men's, and children's hosiery. Such subjects as Commercial Standards, quarterly wage surveys conducted by the Association, the effect of the higher statutory minimum wage, the application of the new learner minima, and others, will be discussed.

The conference will close on Tuesday afternoon. Reports will be presented by chairmen of the three divisional meetings, followed by a report on the Roper survey on the hosiery wearing and buying habits of women.

Those planning to attend the hosiery industry meetings are urged to arrange to be in Atlantic City on Saturday, April 29. A father-and-son dinner has been planned for that evening at the Chalfonte-Haddon Hall.

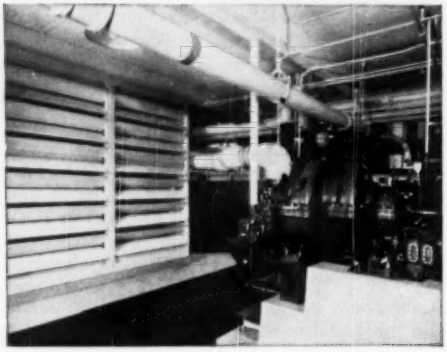
Underwear Producers Proceed Warily

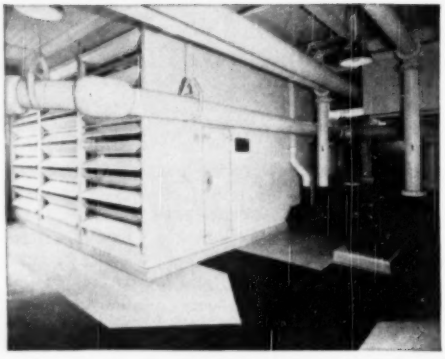
In times past, large operators in the underwear field supplied a stabilizing influence to a good many allied lines. They were reasonably sure of their product and markets. They then made and sold a product generally regarded by the public as a necessity.

The style and fashion element had not at that time entered into this branch of trade so fully as it has since the end of the war. In standard constructions, that had been good sellers for many years, the technique of knitting the garments and selling them did not involve all or even one-half of the complications now being encountered.

At this writing, the larger underwear knitters are as conservative as anybody in any line of industry. Net cost of manufacturing materials, mill supplies and labor remain at a very high level. Cost of merchandising the finished goods has advanced as much, and in some cases where promotional outlay is necessary, a good deal more.

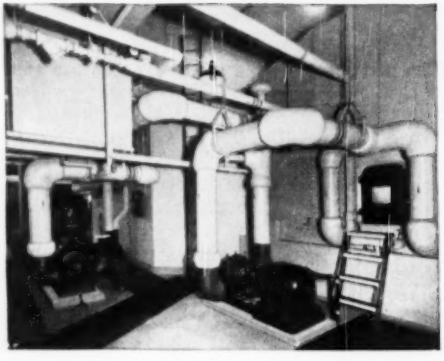
Bahnson CENTRAL STATION
AIR CONDITIONING SYSTEMS



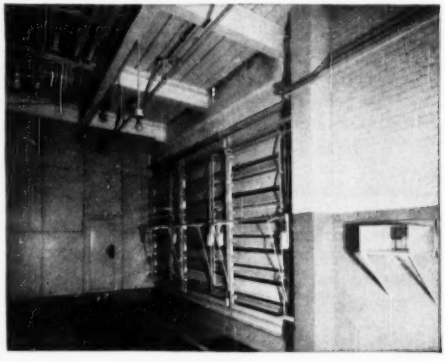


Bahnson Central Station Air Conditioning Systems are installed in cotton, rayon, wool and nylon plants in capacities ranging up to 280,000 cubic feet of air per minute per single air washer and are designed for either evaporative or refrigerative cooling, including air cleaning and filtering.

Quality production, efficient operation and worker comfort can be measured in today's modern plants by the adequacy and scope of the air conditioning system. Bahnson engineered and Bahnson built Central Station Air Conditioning Systems offer the best in design and workmanship for year 'round humidity and temperature control to meet the requirements of fibre, machine and operator. Bahnson engineering is based on more than 34 years of experience in the development and application of air conditioning equipment and systems.



Illustrations show apparatus room of Bahnson Central Station System with refrigeration.



Bahnson Company
ENGINEERS AND MANUFACTURERS
WINSTON-SALEM, N. C.

Gauge for Cam Steps on Komets

By ERNEST BRIDGES

ON PLATES 30 and 30A in the Komet parts catalog a group of cams are listed as follows: 203443, Draw Thread Trapper Cam; 203441, Double Feed Feeder Cam; 203440, Bolt Cam Operating Cam; 203439, Draw Thread Feeder Cam; and 203828, Draw Thread Raising Cam. Each of these cams supplies motion to a slide, and the combined action of the cams and their respective slides control the action of the auxiliary knitting feed which is frequently called the double feed.

The two important factors in the operation of these cams are *time* and *distance*. Correct timing means that each cam must be set or located on the spindle to move its slide in and out at the proper time in relation to upper and lower cylinder movement. Each cam must move its slide in and out to a given distance. Movement of the slides is determined by the steps on each cam. All of the operating cams, except 203440, have only two positions relating to the slides; namely, *fully in* and *fully out*.

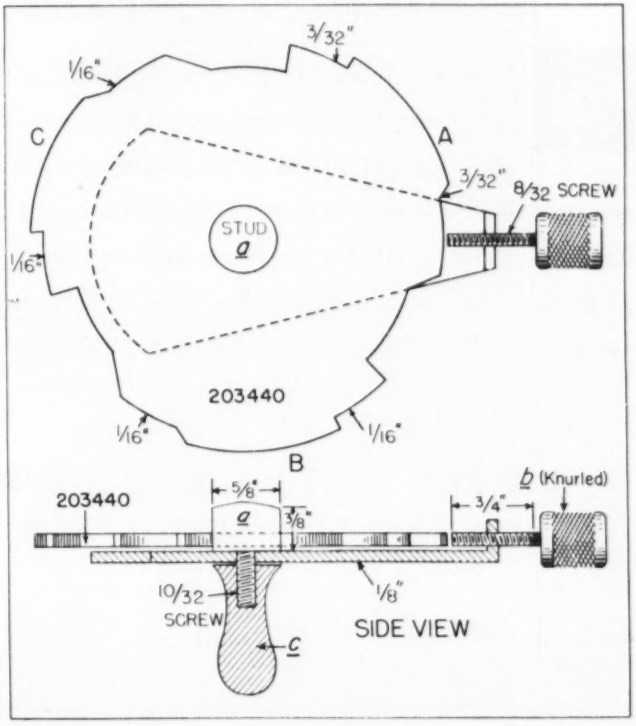
The bolt cam operating cam, 203440, has four operating positions: fully in, fully out, and two steps of different heights in the interval. The cam, 203440, is shown in the accompanying illustration. It has three operating sections: (A), (B), and (C). Each section has a step on both ends. One very important factor is that each pair of steps on the respective sections must be exactly the same height, and Sections (B) and (C) must be alike.

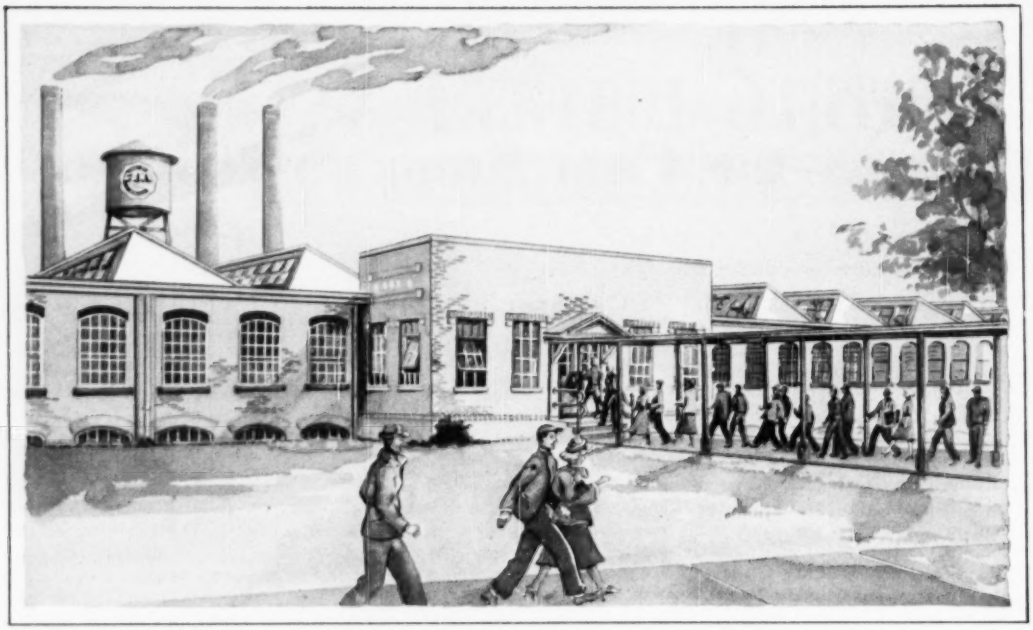
Frequently these steps may vary in height through wear or abuse. The gauge, illustrated in the sketch, was designed to permit accurate checking of the respective steps so that any variations may be determined. The gauge is made of flat cold rolled steel, two inches wide and three and one half inches long. The small end is bent 3/8-inch at a right angle to accommodate the thumb screw (b).

The stud (a), in Fig. 2, is 5/8-inch in diameter and 3/8-inch long to fit the hole in the bolt cam operating cam, 203440. The lower part of the stud is turned down and threaded to make a 10/32 screw. The stud is placed in the gauge as shown. The knob (c) serves to hold the gauge while thumb screw (b) is set for checking the steps.

In making a check, place cam 203440 on stud (a) and set thumb screw (b) for desired step, then lift and turn cam 203440 to check respective steps of same height on other portions of the cam. Steps on either end of (A) should be exactly the same height.

Any machine fixer should be able to make this gauge in his spare time, and it should prove to be very useful.





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Each working day, twelve thousand men and women enter the doors of Cone Mills Corporation's eighteen plants to carry out important assignments in the production of Cone fabrics. Many of these men and women have been a part of the Cone organization for more than twenty-five years. Many others are sons and daughters of veteran Cone employees. Together, they make up a team whose combined experience and skill give assurance that Cone fabrics are quality fabrics.

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Selling Organization: **CONE EXPORT & COMMISSION CO., INC.**, 59 WORTH ST., NEW YORK CITY

Standard Hosiery Is in Request

Market authorities in the hosiery field report leading knitters have already sold nearly all their production for first four months, and this applies to the unbranded as well as the branded lines. This discloses that among the larger wholesale and retail outlets, the "early Easter" trade this year has counseled earlier replacements in dealers' stocks, in most constructions. During a large part of the first quarter of 1950 the dealers, both large and small, devoted attention to clearing out merchandise they still owned after the Christmas season ended.

There has lately been a movement among them to rebuild hosiery inventories again to "basic" levels. This affords the knitters in most categories an opportunity to push standard goods through their regularly established channels. With ordinary luck, it is believed, the stocking mills will realize a comfortable total volume of new business—larger in dozens of pairs than they had at this time last year, and possibly reaching a greater total in dollar-volume of sales.

At the same time, it can be stated that not all hosiery producers have been faring so well as indicated in the foregoing. In some quarters there has been "underselling" in order to get volume business going.

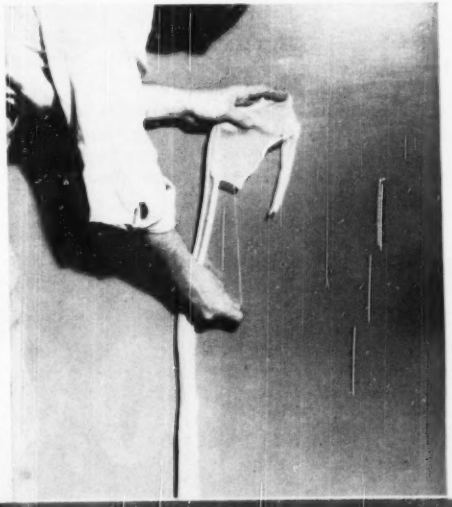
Some of the merchandise offered by knitting mills over the past several weeks obviously consisted of "grey stocks" owned by small knitters, who found it difficult to sell up their production during the period when their larger competitors were booking fairly satisfactory business. In some cases the product of small sources compares favorably with that of competitors, but they do not have the resources or organization to put pressure enough into their merchandising.

Expectations as to the future scope of hosiery business have to be considered in relation to many factors, now unknown, which will affect producers and distributors alike, it is emphasized by knitwear authorities.

Knitter Hints No. 30

Puckered Seams

This long string (upper photo) caused the puckered seam (lower photo). USE YOUR SCISSORS, or the seam suffers.



Check Test Preboarding Machine

The newly developed, compact, Proctor Check Test Preboarding Machine enables the manufacturer to obtain a quick check on how the stocking will appear after preboarding without processing it on a full scale preboarding machine.

Test stockings removed from this machine are checked to determine shrinkage, whether the stitch is loose or tight, whether the stocking is "sleazy," or whether it suffers from any other imperfection in the knitting.

The machine operates on the same basic principle as the regular Proctor preboarding machine, but is almost entirely manual. The chamber is easily raised and lowered by hand.

When a test is to be conducted, the stockings are placed on the vertical boards, the chamber lowered and locked, the steam turned on and preboarding begins. After a predetermined time, the steam is automatically shut off, the chamber unlocked and raised by hand. The machine has a capacity for processing up to six stockings at a time.

Check Test Preboarding Machine (Proctor & Schwartz).

One of these test machines, located in the dye house of any mill finishing dyed stockings in steam under pressure, will enable the dyer to determine whether his dye formula will produce the proper shade in finished stockings.

Proctor & Schwartz, Inc., Seventh St. and Tabor Rd., Philadelphia 20, Pa.

For additional data, request item D-301, using business reply card on page 298.

Knitting Yarns Easing Off

Knitting concerns have commenced to regain more control over their outlay for yarns. This applies both to natural and synthetic fibers. Thus far, it cannot be said that buyers have restored their domination of the yarn markets to the extent of last spring and summer, but the recent trend is in that direction.

In cotton sale yarns, for ex-

12,300,000
FEET OF HOLT MAPLE FLOORING!
HAVE GONE INTO TEXTILE MILLS THROUGHOUT THE COUNTRY SINCE 1920—WITH COMPLETE SATISFACTION TO THE MILL OPERATORS.
When you think of floors, remember to specify Holt Flooring, made from Northern Wisconsin-Michigan Hard Maple.
HOLT HARDWOOD COMPANY., OCONTO, WISCONSIN

ample, relatively few price changes were registered between the middle of November and the end of January. Yarn distributors and the spinners regarded this as a time of stabilization, following the rally in volume and prices during September and October.

Since the middle of January, however, it has become progressively more difficult to obtain the so-called "stabilized" rates for knitting yarns which are not intended to be used until May, or later. Meanwhile, some types of yarn which ordinarily are spun primarily for other uses but easily are adaptable for knitting, have been offered in the markets by integrated concerns.

The latter, including a number that produce yarn for industrial purposes, and in substantial volume, have lost some of their cotton yarn outlets through the inroads made by synthetics. To prevent cotton spindles from being idle, they are merchandising part of their yarn in the general trade, often at cost or only a little above. This kind of competition is expected to increase and many of the regular sale cotton yarn sources have begun to adjust their price expectations accordingly.

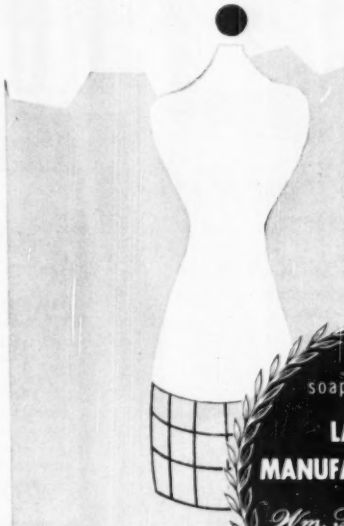
In addition, knitters and weavers not only are keeping their inventories within conservative limits, but they find the wholesalers of finished merchandise doing likewise, as also are some of the largest retail outfits. The aim of this, of course, is to avoid having any necessity for taking markdowns around mid-year, as was done in 1949 and 1948.

Scott & Williams Opens "Customer Clinic" in Empire State Building

In order to better serve its customers, Scott & Williams, Inc., has expanded its offices in the Empire State Building, New York City, where it will have in daily operation many of its Komet Links-and-Links machines as well as its 400-needle circular knit machines, according to an announcement by

Greater efficiency of LAUREL soaps, oils, finishes keeps your wet processing costs down—

Whether for fashion or industry, your yarns or fabrics will win greater favor, give greater service . . . and cost you less when they're processed with Laurel soaps, oils, finishes. Scientifically developed, laboratory- and mill-tested, these quality Laurel wet processing agents are pure, uniform, dependable. Only top grade raw materials are used. Since 1909 important wet processors have found Laurel processing agents yield smoother, more efficient production, more salable finished products. Take advantage of Laurel's wet processing experience. Write or call the Laurel Technicians for recommendations.



Laurel Synthetic Detergents • Laurel Hydrosol • Laurel Wool Oils • Hydrocop • 3B Softener Laurel Rayon Oils Laurel Nynit C Laurel Hosiery Finishes • Laureltex Transfer Remover Laurel Knitting Machine Oil

textile soaps, oils, finishes

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Light, easy running. Snag proof.

children of the textile industry

LANE

Canvas Boxes and Trucks

Smooth—light, long lived.

On exhibit, Space 40, American Textile Machinery Show.

Write for Catalog No. 1

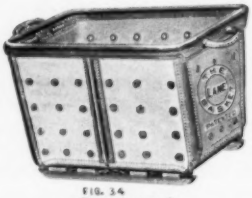

FIG. 34
Steaming and Conditioning Basket

Brass grommets afford free and uniform ventilation. Snag proof.

Style 27
Standard Type Truck

Lane trucks offer a variety of caster equipment, both iron and rubber.

W. T. LANE & BROS., Inc. Manufacturers Poughkeepsie, N. Y.

Specify

AMERICAN

For Knitting or Weaving

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Highest Quality Mercerized Yarns

NATURAL YARNS

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Combed Peeler or Sak, 10's—100's Ply

Selling Agents for

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Knitting Yarns

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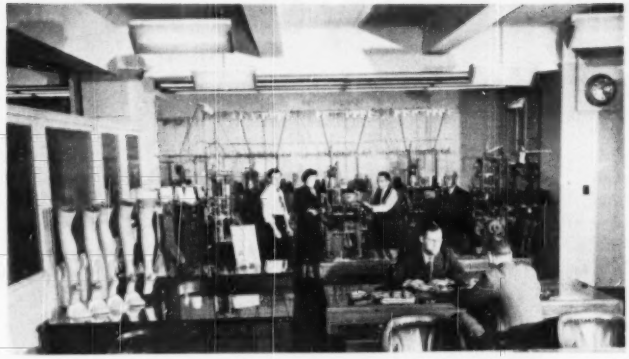
SUPPLIERS TO THE TEXTILE TRADE FOR OVER 25 YEARS



Scott & Williams' customer clinic in Empire State Building.

Beale J. Faucette, vice-president.

Customers and their salesmen visiting New York are cordially invited to stop in at the showroom and to consider it a "clinic" where engineers will be happy to help them work out knitting problems or to aid individual mills in developing new ideas.

For the convenience of both foreign and domestic clients, Scott & Williams has grouped together on the eighteenth floor of the Empire State Building all of its sales, export, publicity and demonstration departments. The facilities of each are at the service of the mills.

AN EYE ON THE KNITTING MILLS

A new company, known as **Sandhurst Mills, Inc.**, has been chartered with an authorized capital of $500,000 at Rockingham, N. C., to produce 60-gauge nylon hosiery. W. B. Cole is chairman of the board; Robert L. Cole, president, and Thomas H. Leath secretary-treasurer.

A branch mill at Demopolis, Ala., is being considered by **Vanity Fair Mills, Inc.**, Reading, Pa.

A new mill at Montezuma, Ga., said to represent an investment of $200,000, will be occupied under lease by **Vanta Corp.**, a subsidiary of Shawmut, Inc., Stoughton, Mass. Children's knitted undergarments and kindred items will be manufactured.

Abraham J. Nemetski, 55 West 42nd St., New York, N. Y., is attorney and representative for **Modernage Knitwear, Inc.**, which has been chartered to operate a plant for the manufacture of knitted outerwear.

Suemil Knitting Mills, Inc., New York, N. Y., has been incorporated to manufacture a variety of knitted cloth products. Matthew H. Ross, 274 Madison Ave., is attorney and representative.

Michael Wilson is president of the recently organized **Trutex Knitted Fabrics, Inc.**, 450 Seventh Ave., New York, N. Y.

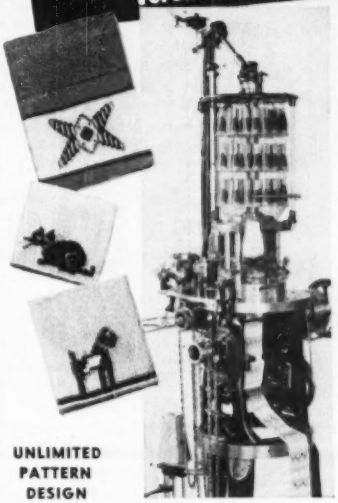
Donna Hosiery Mills, Inc., has been merged with **Ladd Hosiery Mills, Inc.**, Shillington, Pa.

New interests, headed by A. J. Leff, Chicago, Ill., have acquired **Kenosha (Wis.) Full-Fashioned Hosiery Mills, Inc.**

A new knitting mill at Manchester, N. H., organized by **B. & C. Worsted Co.**, will specialize in worsted knit goods.

Now the NEW Improved FIDELITY MULTI-DESIGN RIBBER

Dependable • Time-tested Versatile



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The unique 25 step pattern mechanism makes possible an endless number of color designs, limited only by the imagination of the designer . . . yet patterns can be changed with ease in a relatively short time.

Thousands of Fidelity Ribbers have given trouble-free service for over a quarter of a century and the soundness of their basic design is a proven fact.

This dependable, time-tested Ribber now brings to your plant a versatility of design that will mean better production, more sales and the means to meet competition.

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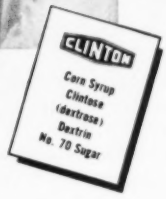
● Clinton Textile Starches are scientifically manufactured and guaranteed for unvarying uniformity. Clinton Starches give your warp the necessary body, strength and pliability that means quality weaving every time. Reduce loom stoppage and increase production with Clinton Textile Starches. For years Clinton has been a leader in the production of starches for all textile purposes.

Clinton Textile Starches are under careful laboratory control at all times during the manufacturing process. This insures uniformly high quality in Clinton products.



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ASK FOR OUR LIST OF SATISFIED CLIENTS—IT READS LIKE THE BLUE BOOK OF AMERICAN MANUFACTURE.

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Causes of Mildew on Packaged Yarn

EDITOR TEXTILE INDUSTRIES:

We are having trouble with mildew forming on our undyed yarn in the storage warehouse. If your readers can suggest the cause or remedy, we should find it helpful.

The grey yarn from our winders is conditioned in a steam well for about six hours. About one per cent moisture is added at this point. Water in the well boils to provide the steam for conditioning.

Normal humidity, or perhaps lower, is kept in the preparatory departments.

After conditioning, the yarn goes to the packing room where it remains from 2½ to 5 hours before each package is wrapped in paper. It is then packed in corrugated cases and stored in the warehouse. This is a frame building with concrete floor; two doors provide ventilation.

The bottom layer of yarn in the case is the one which is mildewed. The box is not damp and the floor is dry. Also, there is no mildew on the outside of the wrapped package; just on the yarn.

CONTRIBUTOR NO. 8213

Editor's Note: In order to be of immediate service to the reader, this question was answered prior to publication. The solicited information is published here along with the question. Other opinions are invited.

EDITOR TEXTILE INDUSTRIES:

Although it is not possible to state in a few words just what causes the grey yarn to mildew in the instance outlined by CONTRIBUTOR NO. 8213, a review of the conditions leading to the formation of mildew on grey cotton yarn may help him to find and correct the trouble.

The principal conditions regulating the formation of mildew on cotton yarn are moisture conditions and temperature, favorable to the growth of mildew. Other factors such as pH of the yarn (acidity or alkalinity) and nutrients (food) for the spore formation also enter into the picture, but these factors are not of a widely variable nature in cotton yarn. These latter factors are always favorable for mildew growth in grey yarn.

Spores are present in all grey cotton yarn, since cotton from the time it matures in the field is exposed to air-born spores and bacteria. It is necessary for the cotton to be exposed for a few days to the proper conditions of moisture and temperature for mildew to appear. The time required may not exceed more than a day or two under the most favorable conditions.

Most authorities agree that mildew will not grow when the moisture content is below 9%, nor will it grow when the yarn is waterlogged. Temperature is stated to be most favorable above 70 de-

MARCH WINNER

A check for $100 has been mailed to **W. E. Jennings** of Apponaug, R. I., for his winning entry in the kink contest which ended March 15. The kink will appear in an early issue.

Kinks are paid for at regular space rates, and an additional $100 is awarded the winner in each contest.

Kink Contest

$ $ Your Idea May Win $100 $ $

This contest ends July 15, 1950

ONE HUNDRED DOLLARS will be awarded for the most helpful short cut, kink, time-saving device, cost-cutting suggestion, or quality improvement idea submitted by July 15.

The contest is open to any reader of this magazine. Contributions eligible for the prize must not have appeared elsewhere.

All material will be paid for at regular space rates upon acceptance irrespective of the contest winner. Advise when submitting entry if participant's name may be used. Only one award will be made in each contest.

Participants are not restricted as to number of items submitted to compete in the contest. Each entry should be described in sufficient detail to make it easily understood, and where possible, glossy photographs or pencil sketches should be included. Finished drawings are not necessary.

All entries for this contest must be postmarked not later than midnight, July 15, 1950. Address: Editor "Textile Industries," 806 Peachtree Street, N. E., Atlanta 5, Georgia.

grees Fahrenheit, although the growth may occur slowly at lower temperatures. The summer months are more favorable to mildew growth since the high summer temperature is more favorable than winter temperatures, and the higher summer humidity increases the chance for yarn to pick up moisture to the danger point.

With these facts in mind, CONTRIBUTOR No. 8213 may be able to study his yarn handling and locate the point where the trouble arises. The first point for suspicion is that the bottom layer of yarn picks up an excess of moisture at some point after being packed in cases. Possibly it could come from the concrete floor that appears to be dry, but actually contains excess moisture. Concrete is porous and is not impervious to moisture. If the floor is in contact with the ground it is possible that it transmits moisture into the cases, even though the floor appears dry.

The fact that the yarn wrappers do not mildew may indicate that their moisture-holding capacity is lower than that of the yarn, or that the wrappers are in a more sterile condition. In storing materials susceptible to mildew in a warehouse containing a concrete floor, it is good practice to place them on dunnage, so that moisture that may be in the concrete will not be transmitted into material.

CONTRIBUTOR No. 8217

Reinforcement for Reed Cap

This item was submitted in a kink contest.

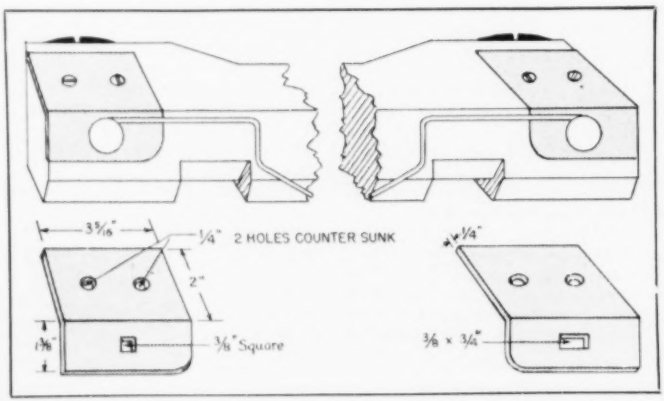
EDITOR TEXTILE INDUSTRIES:

In our weave room, we formerly had trouble with split reed caps, loose bolts, and sliding reeds. A solid piece of angle iron proved to be too heavy for the reed cap and loom.

We have found that a short piece of angle iron, installed on each end of the reed cap, serves as a good reinforcement and saves many repairs. (See drawing for details.) The angle iron is provided with a square hole to prevent the bolt from turning and being pulled into the reed cap. This prevents bolts from breaking and also saves labor on excessive repairs.

The attachment is easy to make and is inexpensive as compared to the saving of reed caps and labor. The reinforcement can be made to any desired dimensions.

CONTRIBUTOR No. 8205



Profit or Loss in Size Percentage

EDITOR TEXTILE INDUSTRIES:

Many mills do not put enough size on their warp yarns, and consequently they are losing ground in the competitive market. The correct percentage of size for good weaving may be much less than the maximum percentage of size allowable on the cloth. Costs on under-sized cloth may exceed the profit margin in some instances. Overlooking size tolerances in specifications sometimes means lost profits and fewer orders, especially in making close estimates to compete for orders on contracted goods.

Unless they try to obtain something near the maximum percentage of size allowable, many mills are losing money that may mean the difference between operating at a profit or operating at a loss as competition increases.

Several instances may be cited to show the importance of obtaining the optimum percentage of size on the warp. For example, one mill bought 250,000 pounds of yarn made to specifications which included an unusually low twist and two extra teeth on the draft gear. The resultant yarn lightened a five-beam slasher creel by 75 pounds. The mill officials decided to size the yarn to make up for the loss in weight. The warps ran well on the looms (this cloth was made for bagging), and the fabric was within the limits allowed for size content as set forth in Worth Street Specifications. According to the management of this mill, the additional size added to the yarn permitted them to make a profit that would not have been possible otherwise.

In another instance, the mill received an order for cloth to be made with not more than seven per cent size. This cloth would not weave when sized with thin boiling starch; however it ran well when sized with pearl starch, and more of the starch was retained by

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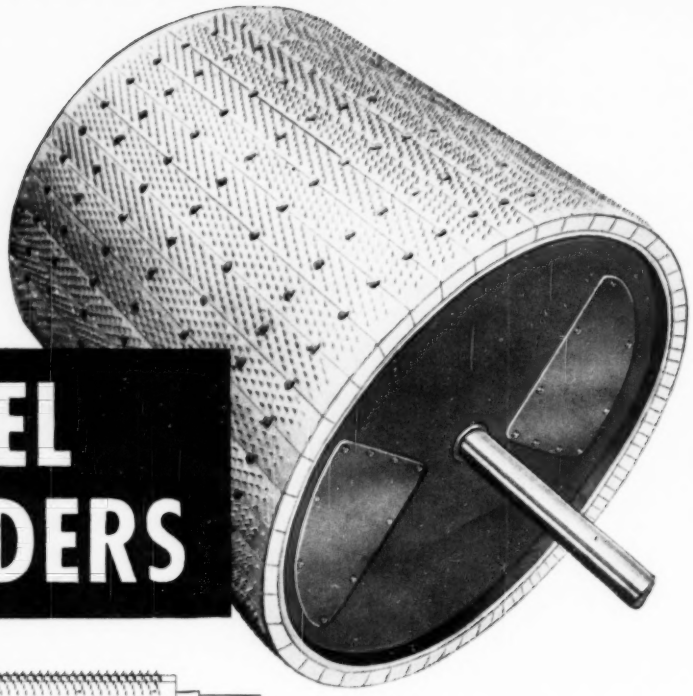
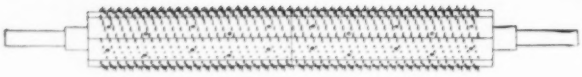
NON BREAKABLE

STEEL CYLINDERS



Main Cylinder



Worker Cylinder

Will Not Crack Regardless of Speed

SAFE — Constructed of steel throughout.

SIMPLE — Need no under lagging. Lags bolted direct to steel cylinders.

TROUBLE-PROOF — Pins cannot back out. Sealed in at ends. No lint accumulation.

EFFICIENT — Dynamically balanced. Smooth operation.

We engineer Steel Cylinders to your exact requirements. Write today for full details.

Made in any diameter 3" to 63".
Made in any length 10" to 63".

Cotton Picker and Shoddy Picker Cylinders A Specialty. Delivery now 120 Days.

WILLIAM CRABB & COMPANY • 301 Third Ave., Newark, N. J.

the yarn in the warp.

A simple example of actual mill operations in which the percentage of size added may be a controlling factor on the profit and loss statement is as follows:

@ 30c per pound
7,471,895 lb cotton started at opening
1,255,078 lb waste taken out in all processes

6,216,817 lb good cotton processed

This waste averages approximately 16% of input, and average return on waste sold was 6c per pound.

$75,304.68 received for waste

The cost of cotton in the yarn amounted to 34.85c per pound.

In a fabric containing 50% warp and 50% filling, calculations in the accompanying box could apply. They show that by sizing 22% instead of 11% (which would be satisfactory for weaving), the mill saved 1¢ per pound on the material processed—which may mean the difference between profit and loss.

CONTRIBUTOR No. 8256

3,108,408 lb of warp cotton
22% size added

683,849.76 lb size @ 7c per lb

$2,241,568.50 paid for 7,471,895 lb of cotton @ 30c per lb
75,304.68 received for waste

$2,166,263.82 cost of 6,216,817 lb good cotton processed

6,216,817 lb cotton @ 34.85c
683,850 lb size @ 7.00c (22% size on yarn)

6,900,667 total lb @ 32.09c average cost per lb

6,216,817 lb cotton @ 34.85c
341,925 lb size @ 7.00c (when sizing 11%)

6,558,742 total lb @ 33.40c average cost per lb

More on Neps in Reprocessed Stock

Question Briefed: *What experiences have other mills had regarding the relation between the number of neps in stock run one time, as compared with stock run containing 5% reprocessed stock? Any information your readers may offer on this subject will be greatly appreciated. We are debating the issue in our plant and would like to obtain some other opinions.* (CONTRIBUTOR No. 8250, *March*, 1950).

EDITOR TEXTILE INDUSTRIES:

Sometime ago we made six tests over a period of five months. The nep counts were made by different people and under different operating conditions. The percentage of waste added was approximately 5% of weight delivered at the pickers. One test proved to be in close agreement with the average results.

In the forementioned test, six picker laps were prepared under each of the following conditions:

(a) No reworkable waste added.

(b) Lap waste through the feeders.

(c) Card and drawing sliver through the waste feeder.

(d) Card room roving through the waste machine and waste feeder.

(e) Spinning room roving through the bobbin machine and waste feeder.

(f) Spinning scavenger waste through the waste machine and waste feeder.

The sample laps were run on six cards. Each type lap was run on each of the cards and the nep counts made through the stripping cycle at ½ hour, 1½ hours, and 2½ hours after stripping. Two boards were counted each time.

The laps containing no reworkable waste showed the smallest number of neps.

The lap waste and sliver waste had similar effects, indicating that some neps are caused in the opening and picking processes, but not in carding.

Both types of roving waste had similar effects, indicating that most of the neps are caused by the action of the waste machine and the bobbin machine.

The spinning scavenger waste had less effect than the roving waste. Since this waste also runs through the waste machine, the only explanation that can be offered is that due to the condition of the material, it offers less resistance and is subjected to less harsh action than the roving waste.

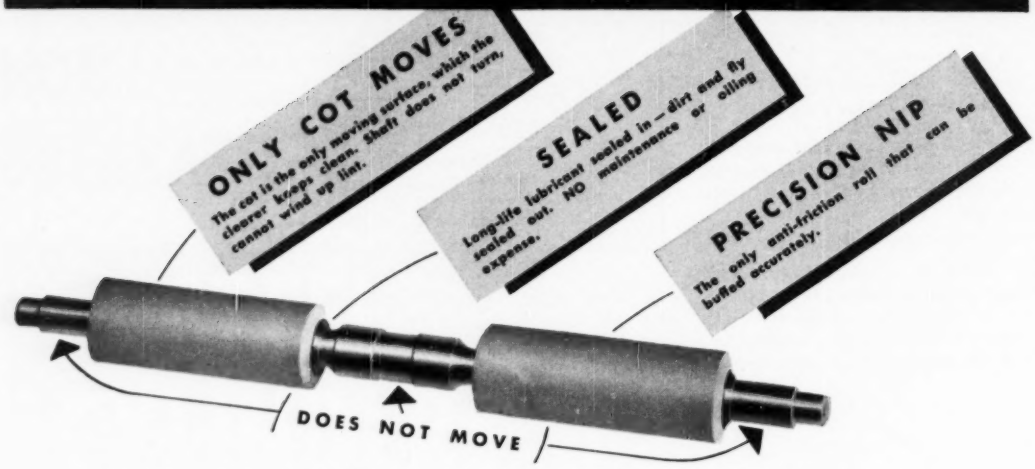
Average results of all the tests are as follows:

(1) Lap waste and sliver waste, which require no special preparation before blending with the raw stock, have the least effect on the nep count. There is no apparent difference in lap waste and sliver waste. The increase in neps caused by this waste is about 25%.

(2) Spinning scavenger waste, which must be run through the waste machine before blending, has about the same effect as lap and sliver waste. Since this waste consists of drawn roving loosely wound into balls, it apparently is not damaged to any large extent by the waste machine beaters. The increase in neps caused by this waste is about 25% to 30%.

(3) Card room roving which is run through the waste machine, and spinning room roving which is run through the bobbin machine, have very similar effects

CLIMAX BALL BEARING Top Rolls for ROVING


ONLY COT MOVES
The cot is the only moving surface, which the clearer keeps clean. Shaft does not turn, cannot wind up lint.
SEALED
Long-life lubricant sealed in—dirt and fly sealed out. NO maintenance or oiling expense.
PRECISION NIP
The only anti-friction roll that can be buffed accurately.
DOES NOT MOVE

Avoid confusing CLIMAX with the old style ball bearing "shell" rolls, or their modifications. New and different CLIMAX Rolls — "400 installations in 4 years" — are the only rolls of their type.

HOW THEY MAKE SAVINGS

They quickly pay for themselves in direct dollar savings — save cost of lubricant, oiling labor, roll cleaning and picking, roll maintenance.

HOW THEY IMPROVE QUALITY

They yield extra dividends of improved quality through — cleaner yarn free of oil stains; softer, more spinnable roving; more uniform roving free of gouts, foxtails, or uneven spots due to imperfect nip.

Custom made for your frames. Will take various weightings up to 250 lbs.

LET US HELP YOU PLAN YOUR INSTALLATION

AT THE

TEXTILE SHOW

Climax and Sintex Rolls will be displayed with factory men in attendance

at our Booth 581

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Caixa Postal 5904
Sao Paulo, Brazil

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Milan, Italy

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CLIMAX Ball Bearing Top Rolls for Roving, and Front Spinning Rolls.

SINTEX Non-lubricated Top Rolls for Spinning — middle and back lines.

CLIMAX Ball Bearing Top Rolls for Wool and Worsted Spinning.

and cause the largest number of neps. The increase in neps in this instance is about 40% to 50%.

(4) When all types of waste are mixed, as in normal operation, the increase in neps is about 50%.

CONTRIBUTOR No. 8252

Discussion on Oiling Cotton

Question Briefed: *We should appreciate the comments of mills who have had experience with spraying oil on cotton at the pickers. The benefits, point of application, staple of stock, picker beaters used, disadvantages, amount of oil applied, and any other pertinent information would be welcome.* (CONTRIBUTOR No. 8249, *February*, 1950).

EDITOR TEXTILE INDUSTRIES:

In reply to CONTRIBUTOR No. 8249's question on spraying cotton with oil, I should like to give my observations on the subject.

To be effective, oil must be sprayed uniformly through the mass of stock. If it is not applied uniformly, streaks will occur in stock. The wet spots will tend to hold trash and dirt through subsequent processes, and the spots with insufficient oil will not hold dust and short staple inside card but will allow it to get into air instead of under card. Too much oil will also cause a gummy deposit to be formed on grid bars and card screens and will cause poor cleaning.

Approximately .2% of oil on the weight of cotton fed gives best results in cleaning and dust control. The oil should be applied to the stock as early in the processing as possible to insure evenness of blend and to prevent wet spots. The application of oil to the cotton at the picker beater is unsatisfactory because the oil forms a gummy substance on feed rolls and grid bars. The gummy deposits pick up trash and pieces of good cotton and eventually clog up grid bars, thereby interfering with air currents and causing insufficient cleaning.

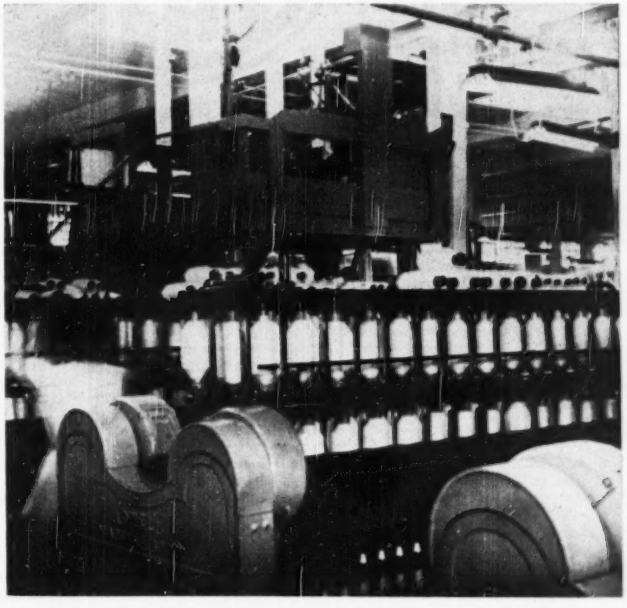
The oil spray unit should be placed in the individual opener hoppers on each line or in the bale breaker. One mill placed their spray unit under a condenser which feeds a conveyor to a line of pickers, but best results are usually achieved at the bale breaker. In order to get a uniform spray at all times, it is advisable to use a metering device. Several good metering devices are on the market.

Oil in the stock will definitely keep down dust in the card room and make it much easier to keep clean. Also if it is properly applied, it will cause stock to run slightly more uniform, and fiber breakage is kept at a minimum. In our mill, card fly was decreased about 10% and flat strips were increased 1%, employing the same settings formerly used. Stock was found to run better on all card room machinery, and ends down were less for oil treated cotton slubbers. Approximately 8% more fly was removed in spinning; therefore the amount of stock saved was negligible. Spraying the stock with oil definitely makes it easier to keep a card room clean.

CONTRIBUTOR No. 8265

Crow's Nest for Bird's-Eye View of Spinning

In one mill, an elevated platform provides office space and quarters for the overseer of spinning who has a bird's-eye view of operations from his perch. In this mill there was not enough space available to provide office space on the floor level, consequently the platform was built so the overseer can conveniently make yarn tests, write reports, and observe operations, in addition to his other duties.



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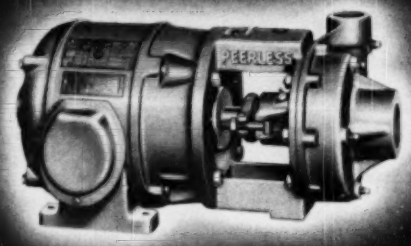
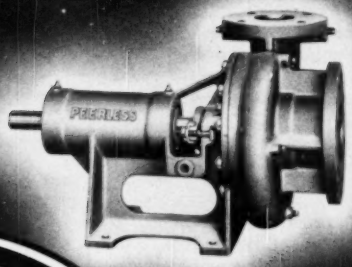
THE PEERLESS *Fluidyne* LINE

CLOSE-COUPLED TYPE
Integral H. P.



Type PE MOTOR SIZE: 1-40 H.P.
CAPACITY: Up to 5500 gpm
HEADS: Up to 270 Feet

BELTED OR DIRECT-CONNECTED TYPE *Integral H. P.*



Type PB MOTOR SIZE: 1-40 H.P.
CAPACITY: Up to 5500 gpm
HEADS: Up to 270 Feet

PEERLESS PUMPS

COMPLETE RANGE OF SIZES FROM ¼ TO 40 H.P.

CAPACITIES: UP TO 5500 G.P.M. • HEADS: UP TO 270 FEET

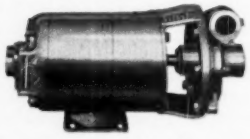
Want compactness? Want efficiency? Want durability? Want economy? You can have them all by using pumps in the versatile and complete line of Peerless Fluidyne general-purpose pumps. Versatile, because they can be applied to a host of diversified services calling for transfering of liquids such as water for air conditioning or cooling and refrigeration systems, mild alkaline solutions, booster service, process uses and many others. Complete, because they offer widest range of sizes and models. The Type PE Fluidyne pump, a close-coupled bracket-type pump is electric drive, available from ¼ to 40 h.p. It is direct-connected to standard NEMA electric motors. The Type PB offers the same wide h.p. range but differs from the PE in that it is built to receive standard V or flat belt pulleys for engine drive, or it can be mounted on a common base with an electric motor and driven by a flexible coupling.

Both Type PE and Type PB Fluidyne pumps are single stage, end suction, centrifugal design. Simplicity and quality and ruggedness are inherent in their design. All parts are easily accessible. Close attention to hydraulic characteristics has resulted in pumping units of high efficiency. Disassembly and assembly for inspection or maintenance is rapid.

Fluidyne pumps operate with unimpaired efficiency in any position—vertical, horizontal or intermediate angle. All parts of exacting Peerless manufacture found only in highest quality pumps. Evidence of their high quality is found in features such as high strength cast bronze streamflow impellers, replaceable bronze wear rings on pump case, oversize packing, drain pocket, ball bearings (PB unit), precision alloy steel shafts.

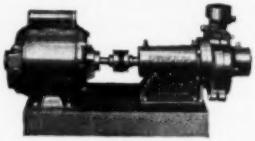
You can probably visualize a score of uses for these dependable, economical pumps. Write today for bulletins describing and illustrating Peerless Fluidyne pumps in the size and type you require.

FRACTIONAL HORSEPOWER CLOSE-COUPLED TYPE PE



¼ to 1 h.p. • 3450 rpm • 60 cycle
Capacity: To 50 gpm • Heads: To 90 Ft.

DIRECT OR BELTED TYPE PB FRACTIONAL HP COMMON BASE



¼ to 1 h.p. • 3450 rpm • 60 cycle
Capacity: To 50 gpm • Heads: To 90 Ft.

PEERLESS PUMP DIVISION
FOOD MACHINERY AND CHEMICAL CORPORATION

Factories: Los Angeles, California, and Indianapolis, Indiana
Offices: New York, Atlanta, Fresno, Los Angeles, Chicago, St. Louis, Phoenix; Dallas, Plainview and Lubbock, Texas.

NEW EQUIPMENT
AND MATERIALS

Reeves Introduces Vari-Spin Drive

A new simplified and compact drive has been developed especially for spinning frame service. Termed the Vari-Spin, cylinders may be kept running at the most efficient speed for any yarn without stopping the frame — turning a speed shifting screw does the job. The drive is stepless and infinite within the range of 2.5:1, so fine gradations in speeds may be secured to compensate for excessive tension and other varying conditions.

The manufacturer believes that production gains are possible because the speed change can be quickly made by hand during the building of the bottom taper, or at critical stages in building the bobbin when the frame of necessity must be run slower than is possible at other times. For such changes the frame need not be stopped.

It is further suggested that a heavier traveler can be used if there is a smooth reduction of spindle speed during the final winding of the bobbin, to reduce the yarn tension and consequently end-breakage. On higher counts the soft-nose bobbins can be reduced by shifting the control screw to obtain a final higher speed.

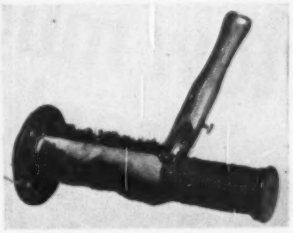
For warp builds the speeds may be increased as the bobbin diameter increases and the pull angle of the yarn decreases. It is reported that in larger ring frames, speed increases up to 30% have been used between start and finish of doff.

The operative may quickly set the spinning frame for the exact speeds that the mill finds produces the best quality of yarn and a minimum of ends down at the highest rate of production for the section of the bobbin being built.

The drive has one V-belt between two pairs of adjustable cone-shaped discs, uses a constant speed motor. Parts include steel mounting base, speed adjusting mechanism, discs, and belt. Mounting accommodates 7½, 10, or 15 hp motors of 1800 rpm, or 7½ and 10 hp of 1200 rpm.

Reeves Pulley Company, Columbus, Indiana.

For additional data, request item D-101, using business reply card on page 298.



YARN KNIFE

The knife shown here being used to remove yarn from partially filled bobbins was developed in cooperation with a large yarn mill to solve a serious safety problem, according to the manufacturer.

It is all metal plated, six inches long, and the blade is adjustable and removable.

Jones Manufacturing Co., 7235 Wentworth Ave., Chicago 21, Ill.

For additional data, request item D-103, using business reply card on page 298.

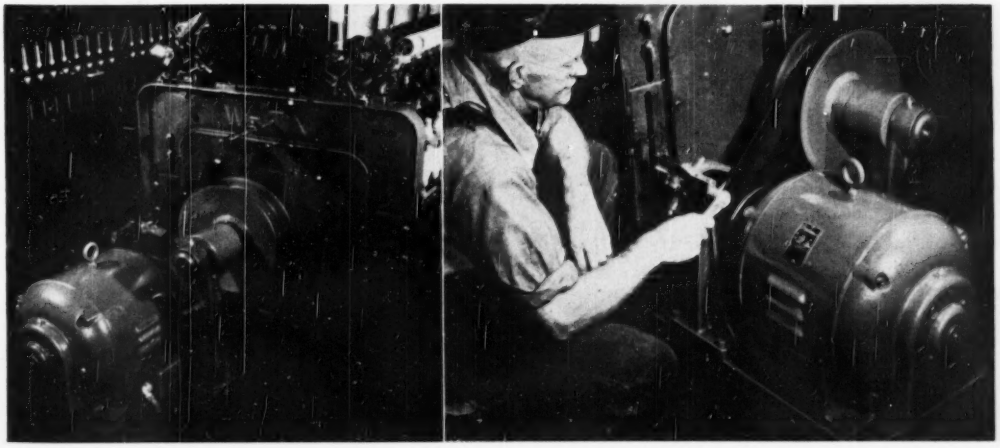
French Crepe Patterns Printed Without Blurring or Mottling

A specially developed vat thickener is reported to be producing excellent results in printing French crepes and Bemberg sheers.

Known as Ambertex M, this vat thickener has two features of immediate interest. It penetrates the cloth, insures a complete discharge of the ground color and prints with unmottled, sunbright brilliance. It also has a cohesive action that not only holds the pattern to the exact proportions of the original engraving but also reproduces the pattern with razor-sharp detail.

By depositing a soft, pliable film

The Reeves Vari-Spin drive for spinning frames. Speed changes can be quickly made by turning shifting screw.



How much should a valve cost?

Only as much as is necessary for it to meet all the conditions under which it must operate.

When the service in which a valve is to be used requires special design and materials, it is poor economy to try to make an inexpensive valve do the job. "Down time", maintenance costs, if not actual valve failure, will far more than offset any initial saving.

On the other hand, in a majority of services, standard Powell Valves satisfy all requirements for long, trouble-free performance.

And, because Powell makes all kinds*, it is the soundest economy to standardize on Powell Valves for all your flow control requirements.

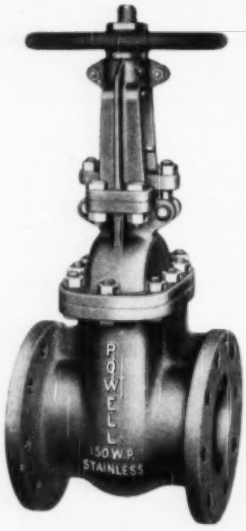


Fig. 2453-G—Large 150-pound Stainless Steel Gate Valve with bolted flanged yoke-bonnet, outside screw rising stem and tapered solid wedge. Made in sizes 5" to 30", inclusive.

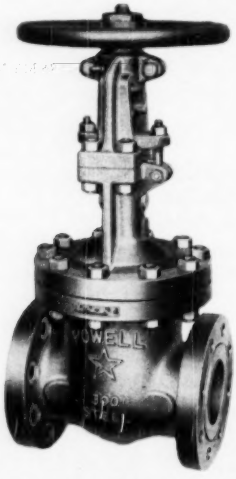


Fig. 3003—Class 300-pound Cast Steel Gate Valve with flanged ends, bolted flanged yoke, outside screw rising stem, tapered solid wedge.

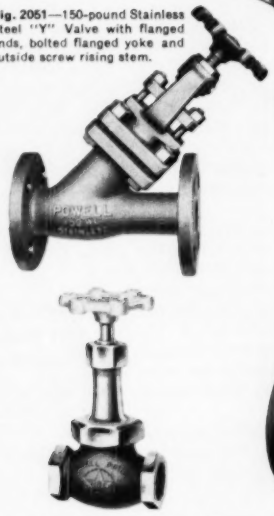


Fig. 2051—150-pound Stainless Steel "Y" Valve with flanged ends, bolted flanged yoke and outside screw rising stem.

Fig. 1708—200-pound Bronze Globe Valve with screwed ends, union bonnet, renewable, specially heat treated stainless steel seat and regrindable, renewable, wear-resisting "Powellium" nickel-bronze disc.

Fig. 1793 — Large 125-pound Iron Body Bronze Mounted Gate Valve. Sizes 2" to 30", incl. Has outside screw rising stem, bolted flanged yoke and tapered solid wedge.

***The Complete Powell Line includes Globe, Angle, "Y", Gate, Check, Non-return, Relief and Flush Bottom Tank Valves in Bronze, Iron, Steel and a wide range of Corrosion-resistant metals and alloys.**

Ask your nearest Distributor—or write direct

The Wm. Powell Company, Cincinnati 22, Ohio

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POWELL VALVES

on the cloth, "splitting" on French crepes and Bemberg sheers is said to be eliminated.

Vat pastes can be readied in 30 minutes when Ambertex M is used, according to the manufacturer. It is simply blended with vat chemicals and tap water.

National Starch Products, Inc., 268 Madison Avenue, New York 16, N. Y.

For additional data, request item D-105, using business reply card on page 298.

Exposed Drives Eliminated on Redesigned Woolen Card

The elimination of exposed flat belt drives is one of the features cited for a wool card recently made available in this country. It is manufactured by G. Josephy's Erben, European textile machinery maker well known prior to the recent war.

The transmission of power to the various elements of the card is accomplished by a long drive shaft and gear trains mounted on the side of the card. Speed changes can be made by simply changing gears.

Engaging and disengaging the various elements is accomplished by means of adjustable couplings. By turning a pressure screw, the coupling can be set for the desired power transmission at that particular point, thereby preventing breakage of bearings and gears when foreign matter enters the machine.

Gears can be changed without the use of a wrench or spanner, it is claimed. Flat stripper belts are of the V-belt design, and these are located on the same side of the card as the worker chains.

The doffer wheel is recessed inside the doffer. Couplings are provided in the longitudinal shaft for detaching the first feed, metallic breast, and other devices.

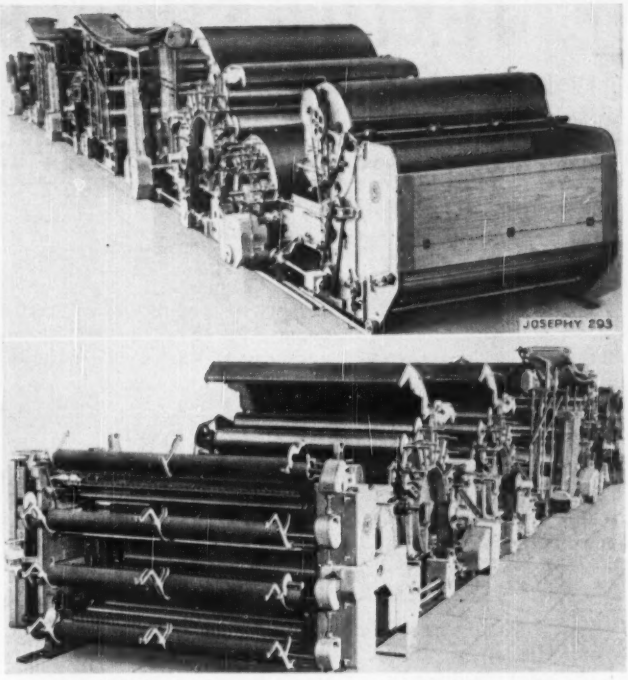
Width of intermediate feed bands is adiustable during operation of the card. Doffer and tape condenser have a combined drive and its main change wheel controls the entire production on the card.

Some features of the tape condenser are: tightening of tapes from outside the frames; improved adjustability of rub aprons; uniform traverse of thread guides; etc.

The Josephy cards are built in three widths: 63 inches, 71 inches, and 78¾ inches.

Matthes Inc., 33 West 42na St., New York 18, N. Y.

For additional data, request item D-106, using business reply card on page 298.



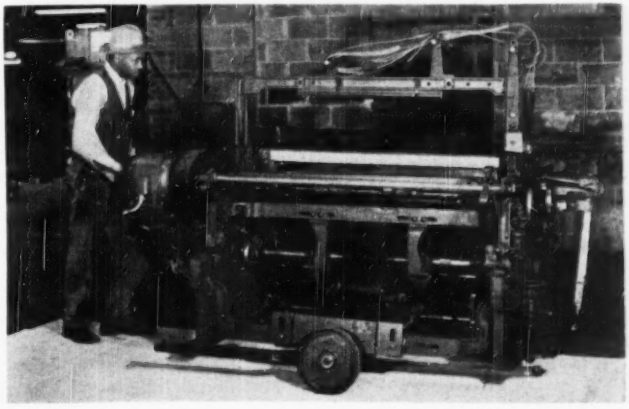
Josephy woolen cards. Top: all automatic 3-card set; bottom: semi-automatic set. Note drive shafting along sides.

Loom Moving Made Easy By New Dolly Design

Two men can easily move a loom any distance and into any position by using a set of loom dollies recently placed on the market. The set contains one dolly for placing under the front girt of the loom, a dolly for the back girt, and 2 extra sets of hooks for the back girt to take care of all thicknesses of girts.

Each dolly consists of a 6-inch bar plate frame, 36-inch lever, and 12-inch rubber-tired ball bearing wheel. After the dolly hooks are placed un-

Moving a loom with one of the new Hunt loom dollies.



TEXTILE SHOW BULLETIN

PUBLISHED IN CONNECTION WITH AMERICAN TEXTILE MACHINERY EXPOSITION

THE WARNER & SWASEY COMPANY • 5701 CARNEGIE AVENUE, CLEVELAND 3, OHIO

The Textile Industry, as reported by FORTUNE magazine, has the acknowledged distinction of being the first modern industry...Second distinction: it is still using almost exactly the same basic techniques as in the days of its birth.

But that report was made back in February 1949. Changes are being made - fast. The industry is not sitting on its hands, Atlantic City, May 8-12 will prove this.

Keynote of Textile's first big postwar showing of its new machinery will be shortening of processes, increased production, greater control. All with an eye to the trend toward more universal equipment in the mill, and a greater return on the mill's investment.

Look for more precision.

Among the machines to make their first public demonstration will be the Warner & Swasey Pin Drafters...Dual and Quad delivery models - Balling Head and other new attachments...all in actual operation.

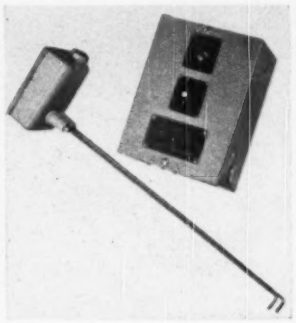
Here visitors will see the worsted industry's most widely accepted new machine. Technical men will be on hand to explain principles, features.....answer all your questions.

Another highly significant step in trend toward the "all-purpose mill" is the Pacific Converter, manufactured by Warner & Swasey. Ideal teammate for the new Pin Drafters, this machine is for conversion of synthetic fiber tow into sliver ... promises considerable savings in machinery and labor. It can produce a sliver of normal staple lengths, either uniform or variable, and can be used to produce accurate blends of any synthetics or mixtures of synthetics with natural fibers.

THAT'S AT BOOTH NO. 294

Jot that booth number down and put it in your bill-fold before you leave for the Show. It may lead to dollar savings in your mill....will certainly prove, along with other manufacturers' exhibits, that the Textile Industry is "on the go".

See you at Atlantic City Auditorium.



AUTOMATIC ELECTRIC LEVEL CONTROL

For slasher size boxes, size storage kettles, dye vats, and other liquid containers, this new electric level control automatically maintains accurate levels or operates alarm signals.

Low current through sensing electrodes minimizes electrolysis to increase electrode life, it is claimed. Motor-operated valve in liquid supply line is positive acting and tight closing.

The cabinet containing electrical components is available with or without a manual over-ride switch and light to indicate valve position. Electrodes, supported in a splashproof compact holder, are easily adjusted for different liquid level differentials.

Barber-Colman Co., Electrical Division, Rockford, Ill.

For additional data, request item D-108, using business reply card on page 298.

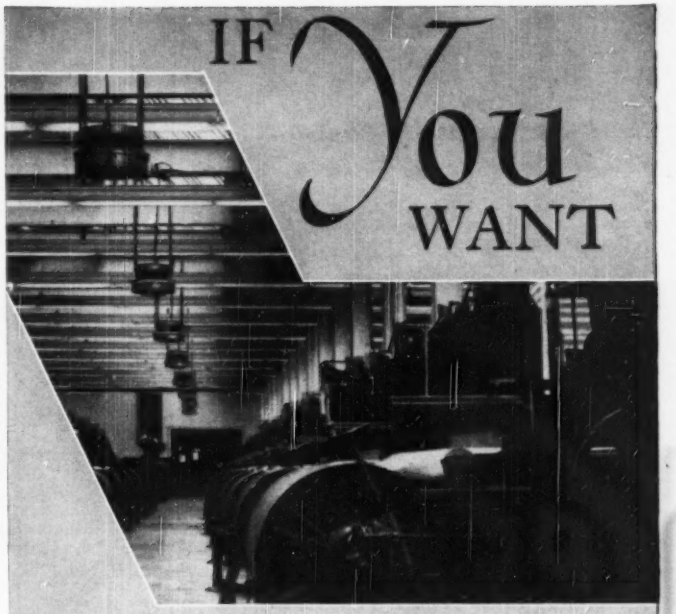
der the girt, the lever is moved 180 degrees and, because of the eccentric design, the weight of the loom locks the lever—with the loom raised into moving position.

Hunt Machine Works, Inc., 200 Academy St., Greenville, S. C.

For additional data, request item D-102, using business reply card on page 298.

Vaporizer for Control of Airborne Bacteria

Now available for installation in industrial plants, offices, etc., is the ARA-4 Vaporizer which dispenses Glycolin No. 90 (a triethylene Glycol



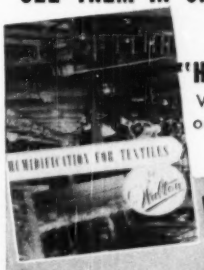
SIMPLIFIED* HUMIDIFICATION
FOR INCREASED QUALITY • PRODUCTION

You WANT THE Walton SYSTEM

*ALL THAT IS REQUIRED IS CONNECTION TO A WATER AND ELECTRICAL SUPPLY

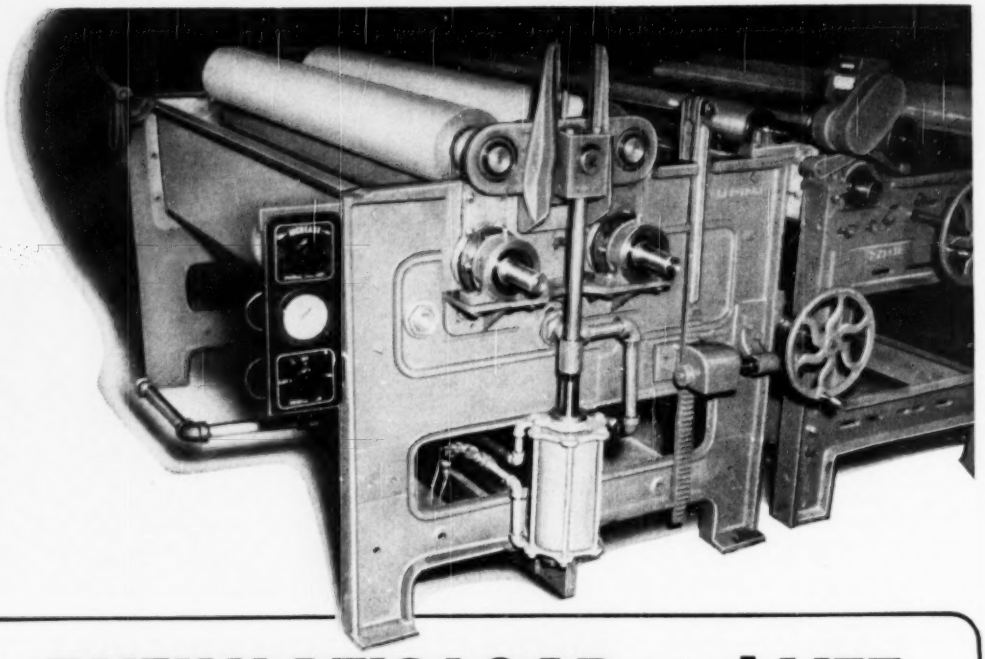
FOR SPOT • BOOSTER • COMPLETE HUMIDIFICATION

SEE THEM IN OPERATION AMERICAN TEX. MACH. SHOW
BOOTHS 266 - 267 - 268



"HUMIDIFICATION FOR TEXTILES"
Write for this new, complete, illustrated booklet, or stop in at our booth and pick up YOUR copy.

WALTON LABORATORIES INC.
IRVINGTON 11, N. J.



PNEUMATIC LOAD and LIFT
puts the RIGHT pressure on Squeeze Rolls

Size penetration is accurate and easily adjusted with the WPF & M Pneumatic Load and Lift device.

The pressure control gauge and knob on the control panel can be set to any predetermined load without guess work. Change over from light to heavy sets is accomplished in seconds, without switching squeeze rolls, by increasing or decreasing pressure as required.

The WPF & M Pneumatic Lift and Load device can be installed on your present equipment without costly alterations.

Ball bearing journals are provided for squeeze roll journals for smooth, long-lasting operation.

You can reduce change-over time on your slashing equipment, eliminate the back-breaking drudgery of lifting squeeze rolls and obtain accurate size penetration time after time with the Pneumatic Load and Lift equipment.

We'll be glad to make a survey of your requirements if you desire.

WEST POINT FOUNDRY & MACHINE CO.
WEST POINT, GEORGIA
Textile Machines . . . To Solve Your Problems

formulation) through air conditioning systems.

According to the announcement, the spread of cold germs and airborne bacteria is prevented when the equipment and solution are used. The unit keeps the required amount of solution in the air at all times as constant protection to personnel.

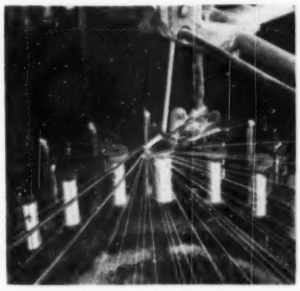
Operation of the device is said to be economical. Glycolin No. 90 is odorless and non-toxic.

The Selig Company, 342 Marietta St., N. W., Atlanta, Ga.

For additional data, request item D-107, using business reply card on page 298.

Carbide-Tipped Braider Former Has Exceptionally Long Life

A recently developed carbide-tipped former for braiders is expected to last for at least ten years. According to the manufacturer, the formers have already been tested in operation for a period of three years without apparent wear and under conditions where wear on the thread



Braider former (Relco).

guide previously caused improperly formed braid within six months.

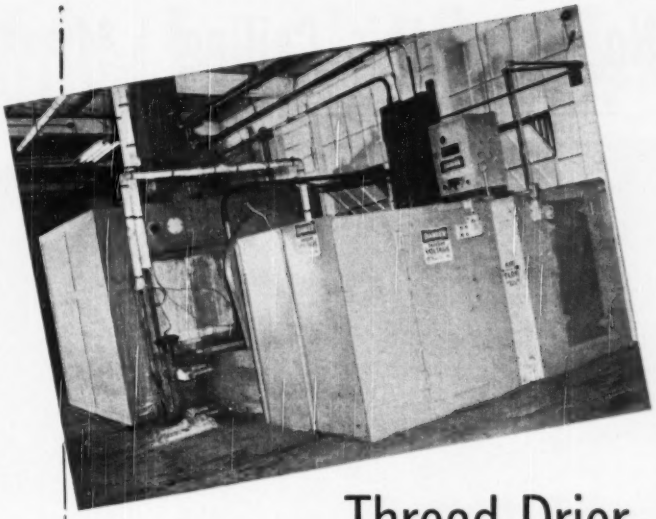
The new former is said to be particularly desirable where nylon or rubber covered yarns are being braided.

Relco Carbide Tool Co., 12 Anthony St., Providence, R. I.

For additional data, request item D-110, using business reply card on page 298.

New Air Handling Units

A new line of air handling units, designated Types AH and AV, intended primarily for remote installation in central plant type air condi-



Thread Drier Features Filtered Air

for product protection

● This large New Jersey manufacturer produces thread of many shades and colors. After the thread is dyed it is placed in a Smith-Drum Package Thread Dryer, shown in background of illustration, and air is blown into the heater chamber under high pressure.

Naturally, this air would be loaded with dust and dirt that could play havoc with delicate pastel colors. But that problem was solved quickly. In the foreground you see an AAF Electro-Airmat* precipitator through which the air must pass. On arrival in the oven it's super-clean, free from all dust particles and smoke that might cause discoloration.

AAF filters have solved many production problems in the textile industry. If you have a process that would benefit from clean air, call your nearby AAF representative. His experience, plus a complete line of product, is your assurance of getting a maximum return from air cleaning operations.

AMERICAN AIR FILTER COMPANY, INC.
275 Central Avenue, Louisville 8, Ky.
In Canada: Darling Bros., Ltd., Montreal, P. Q.

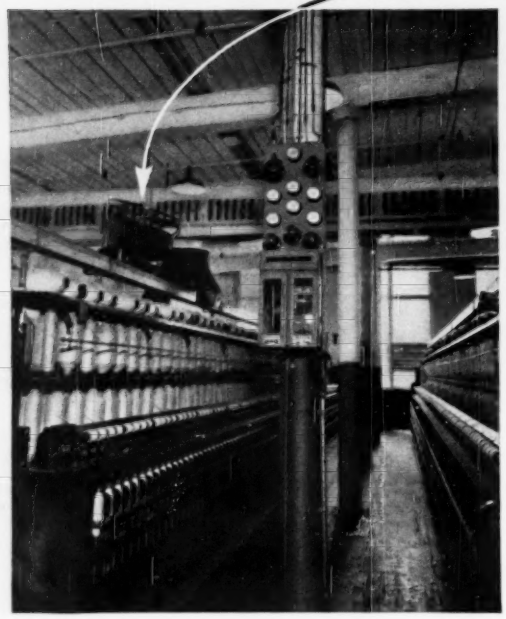
**Airmat is the trade-mark (Reg. U. S. Pat. Off.) of the American Air Filter Company, Inc., for various air filters, dust collectors, and filtering media.*

AAF

AIR FILTERS
AND ELECTRONIC PRECIPITATORS

No Fly on this Ceiling

with ParksTurbo Up-draft Cleaner



Lint, dust and fly not allowed to settle on lights, piping, ceiling and things.

ParksTurbo Up-draft Cleaner

A Paying Addition

This addition to mechanical cleaning rounds out the work of ParksTurbo Traveling Cleaner (CT type, track on frames). *Or may be installed and operated quite independently.*

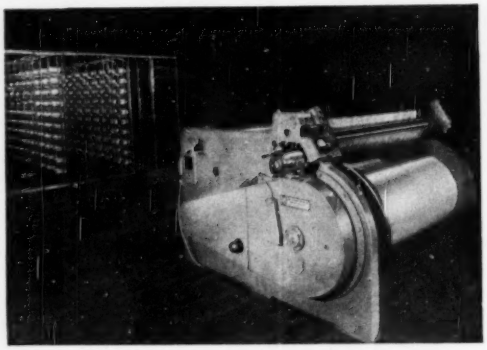
Up-draft hood rotates as it travels, producing a confined high velocity column of air. This air column, with its constantly changing angle, mushrooms, sweeping surfaces clean and spreading rapidly in all directions. An added and most effective cleaning function without cluttering up the room.

And what a difference
a clean room makes!

Parks-Cramer Company

Fitchburg, Mass. PARKS Certified Climate Charlotte, N. C.

Meeting the Test of Actual Mill Operation



THE NEW SIPP-EASTWOOD ELECTRICALLY CONTROLLED

HIGH SPEED WARPER

—the speed of the machine is limited only by the yarn in mills where only the most efficient equipment is tolerated. It builds beams up to 36 inches in diameter, 54¼ inches or wider between heads, with practically no vibration because of smoothly applied power and extra heavy construction.

FEATURES THAT ARE OUTSTANDING:

1. Stepless automatic electrical control of warp speed—1% maximum variation.
2. Electrical indication of speed at all times.
3. Finger-tip controls throughout.
4. Static eliminator.
5. Motor-mounted magnetic disc brake.
6. Magnetically operated hydraulic brakes for auxiliary braking of beam, measuring roll and pressure roll, and to hold the beam at a standstill.
7. Separate hydraulic system for handling beams in and out.
8. A.C. power only required.

Ask for all the facts about this splendid warper.

SIPP-EASTWOOD CORPORATION

45 Keen Street **Paterson, New Jersey**

DOMESTIC AGENTS:

S. FRED TOLL
2128 Green St.
Charlotte 1, N. C.

J. S. FALLOW & CO.
New Bedford, Mass.

tioning systems is available.

These units can also be used for commercial and industrial heating and ventilating. Sizes range from 1,650 to 14,060 cfm at 500 fpm coil face velocity when direct expansion coils are used and up to 18,000 cfm when water coils are used.

Sturtevant Division, Westinghouse Electric Corporation, Hyde Park, Boston 36, Massachusetts.

For additional data, request item D-113, using business reply card on page 298.

Portable Hoist Handy for Textile Mill Tasks

A portable hoist weighing only 8½ pounds, yet capable of lifting one and one-half tons, is finding textile industry application for lifting of

STAINLESS SIZE KETTLE

This stainless steel size cooking and/or storage tank is available in several sizes and is insulated with a stainless steel jacket on the outside. The top is partially hinged and equipped with clamping bolts.

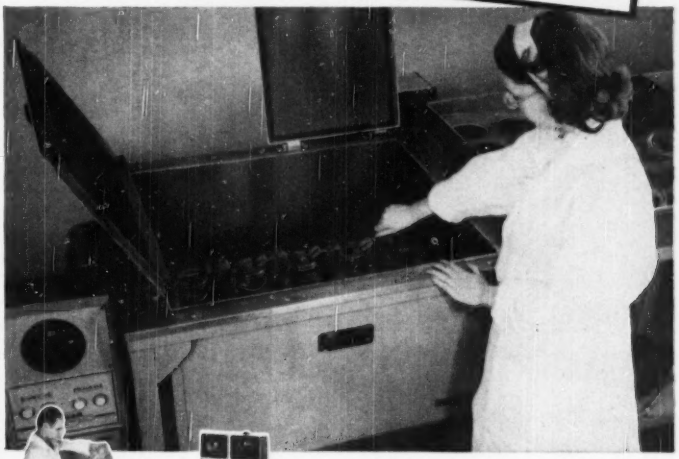
Built for heavy duty, the paddles have top and bottom bearings and are driven through a geared-end motor drive and a right angle gear box. There is a choice of either open or closed type heating coils. The tank bottom is of dished construction with a suitable drain outlet.

Riggs & Lombard, Inc., Foot of Suffolk Street, Lowell, Mass.

For additional data, request item D-104, using business reply page 298.

Atlas Launder-Ometers

used in testing of Detergents at Wyandotte Chemicals Corporation



ATLAS Launder-Ometers, used to determine properties of detergency, color fastness, and resistance to washing and mechanical action, accurately reproduce washing conditions at accelerated speeds.

A typical application of the Launder-Ometer is a series of exhaustive tests conducted by the U. S. Army Quartermaster Corps and the Wyandotte Chemicals Corp. to determine the degree of sterilization and fading caused by various laundering and sterilization treatments of two selected types of Army fabrics — a cotton knit, and a 50% wool, 50% cotton knit. In these tests, the fabric samples were washed in a number of solutions containing chlorine-liberating germicidal agents, while mechanical action was simulated by 15 stainless steel balls introduced into each jar.

Results of these tests enabled the Quartermaster Corps to develop sterilization procedures for Army Mobile Laundry Units, and to obtain a fabric capable of withstanding rugged washing. In this, as in many other ways, testing in Atlas Launder-Ometers resulted in substantial savings and better materials.

New research model Launder-Ometers for accelerated testing of larger samples have recently been developed by Atlas. These units, with capacities ranging from 20 pint jars to 6 half-gallon containers, are now part of the complete line of standard Launder-Ometers.

ATLAS ELECTRIC DEVICES CO.

361 W. SUPERIOR ST., CHICAGO 10, ILLINOIS

Originators and sole manufacturers of

FADE-OMETERS • WEATHER-OMETERS • LAUNDER-OMETERS

EXPERTS at WORK

BOYCE
WEAVER'S
KNOTTER

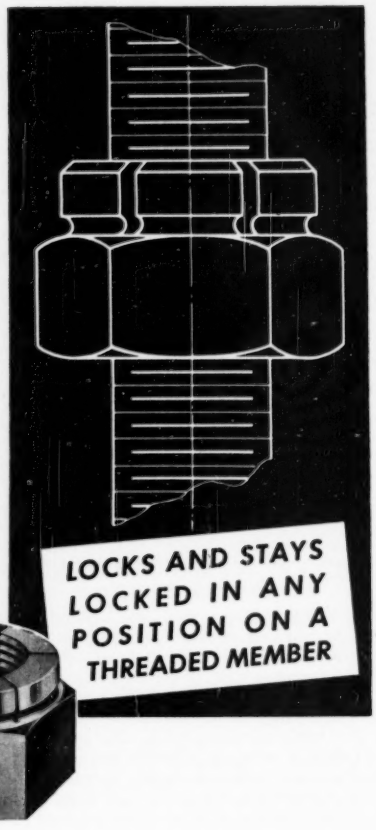
Fast, accurate, dependable—**is the kind of service offered by our Maintenance and Repair Department. Here, skilled technicians inspect, adjust and repair every instrument in use. By loaning you other knotters this service is yours—on request or on a periodic schedule.**

AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

MILL DEVICES COMPANY
DIVISION OF
A. B. CARTER, INC.
GASTONIA N. C.

REPRESENTATIVES

C. E. HERRICK, 44 Franklin Street, PROVIDENCE, RHODE ISLAND
R. D. HUGHES SALES CO., 1812 South Main Street, DALLAS, TEXAS
HUGH WILLIAMS & CO., 47 Colborne St., TORONTO 1, CANADA



The one-piece, all-metal FLEXLOC is both a Stop and a Lock Nut, due to its resilient segments which lock *positively* anywhere on a threaded member . . . even under extreme vibration.

Torque is unusually uniform and kept within a few inch pounds. 550° F. temperature has no terrors for the all-metal FLEXLOC. The FLEXLOC design is very adaptable as evidenced by a steadily increasing number of highly unorthodox applications. "Thin" and "Regular" types; NC and NF threads. Officially approved by many U. S. departments, bureaus, etc.

For further information, write for Bulletin 619-A.

AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

FLEXLOC
SELF LOCKING NUTS
SPS STANDARD PRESSED STEEL CO.
JENKINTOWN 34, PENNSYLVANIA

warps, general plant maintenance, loading and unloading trucks, etc.

The hoist, designated "Lug-All," may be used by a single worker. Designed with a minimum of parts, it is claimed the Lug-All can be repaired right on the job with just a wrench and/or a screw driver. The handle may be reversed so that user may take advantage of easier operating conditions in tight places.

Another advantage claimed is the fact that a 133-strand aircraft cable is employed which reels out easily without snagging. Limit for the cable is 15 feet, at which length the hoist capacity is 1,500 pounds.

Lincoln Precision Mfg. Co., North Grafton, Mass.

For additional data, request item D-111, using business reply card on page 298.

Automatic Bobbin Loader for Whitin-Schweiter Winder

An automatic bobbin loader and delivery unit is now available for use with the Whitin-Schweiter automatic filling winder. It consists of a large capacity hopper, an automatic delivery and supply mechanism to deliver empty bobbins to the winder units, and an automatic return for surplus bobbins.

The attachment eliminates the time now required for the operator to refill the bobbin magazines on the winder units, making possible sharply increased filling production per operator and a consequent reduction in cost per wound pound of yarn, according to the manufacturer.

The bobbin delivery is continuous, and adjustable depending on the number of spindles served and the winding time of the yarns running on the units.

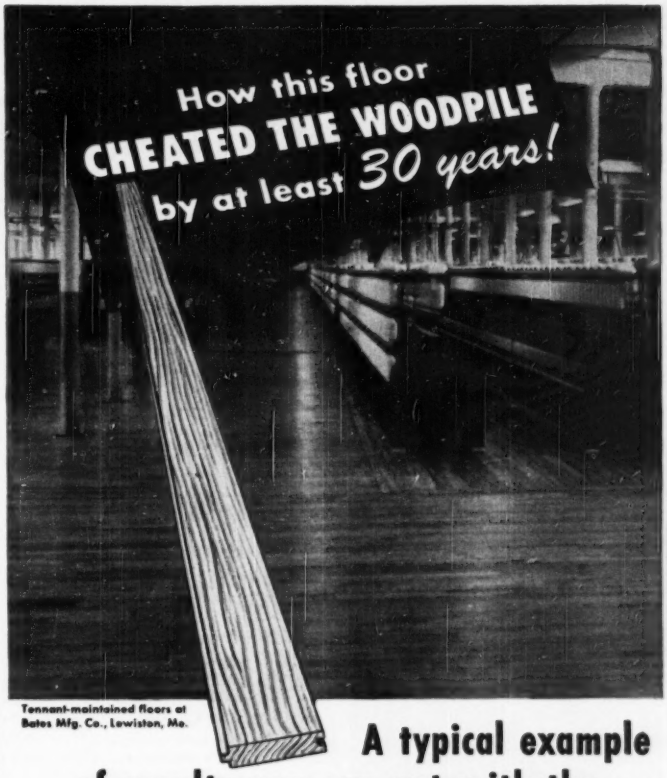
The device can be readily attached to machines now in use or supplied on new machines.

Whitin Machine Works, Whitinsville, Mass.

For additional data, request item D-109, using business reply card on page 298.

Air Cylinders Provide Uniform "Squeeze" on Pressure Rolls

Air cylinders particularly adaptable for applying the repetitive, steady, even "squeeze" required for the pressure rolls of padders, washers, steamers, rope squeezers, con-



Tennant-maintained floors at Bates Mfg. Co., Lewiston, Me.

A typical example of results you can get with the...

TENNANT FLOOR MAINTENANCE SYSTEM

Transformed like magic, this 30-year-old floor—once dark, rough and spongy from scrubbing—is now good for another 30 years. Saved from costly, premature replacement, it's been made bright, smooth and durable again—by low-cost reconditioning with the TENNANT System.

RECONDITIONS your floors. Gets rid of dark, rough, oil-soaked fibers . . . provides a smooth, bright, new-wood surface.

HARDENS floor surface by special sealing process . . . fills, binds and toughens fibers to resist dirt penetration.

DRY CLEANS; ends scrubbing! Avoids muss, saves manhours, reduces accidents . . . assures cleaner floors at LESS COST!

YOUR FLOORS STAY CLEAN longer when dry-cleaned instead of scrubbed! With this Tennant Floor Machine, dirt, grime and traffic stains are whisked off and picked up in 1 operation. Leaves smooth, hard, dirt-resistant surface . . . only daily care needed is fast, easy sweeping with dry cotton mop. No muss, easy to use; keeps floors looking like new.

- Reduces floor cleaning costs.
- Makes floors easy to clean.
- Prolongs floor life, aids safety.

G. H. TENNANT CO.
2585 North 2nd Street
Minneapolis 11, Minnesota

Write today! Ask for "New Floors From Old" article, also "Textile Floor Maintenance" bulletin, etc.

TENNANT FLOOR MAINTENANCE System

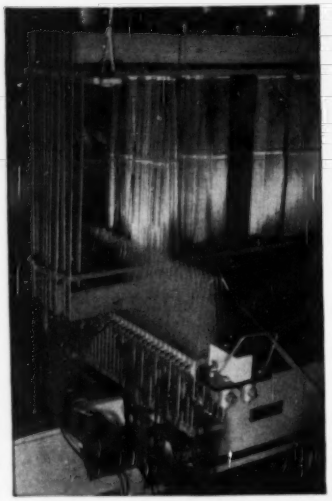
Established 1870

OFFICES IN PRINCIPAL CITIES

TITAN *automatic*
HEDDLE INDICATOR

saves up to 30% in your "drawing-in" operation

- Indicates correct heddle automatically and positively without error.
- Simplifies the entire drawing-in operation.
- No wrong draw is possible because human element in selecting heddles is eliminated.
- Automatic performance enables more efficient results by the operator... actually does the thinking for her.
- Performs the work safely, speedily and efficiently whether pattern is complicated or not.



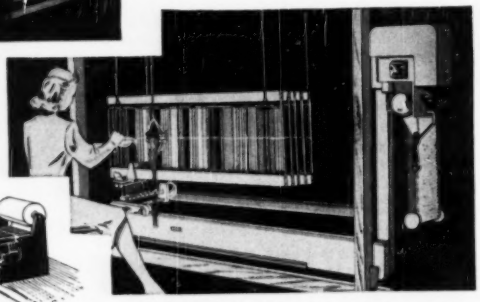
- Also saves training and drawing-in-time over conventional methods.
- Operation is performed with utmost ease and reliability.
- Effects important economies ... up to 30%.

Write for descriptive, illustrated Bulletin HI-2

Visit our Booth at the Textile Show, Atlantic City, N. J. May 8 to 12th

Lamp reflectors and spring-loaded strap contact automatically designate the correct harness in accordance with the perforation on paper band.

Punching machine supplied for perforating the paper band according to the design.



TITAN HEDDLE INDICATOR complete with electrical unit, and endless paper band.

EDDA INTERNATIONAL CORP.
468 FOURTH AVE., NEW YORK CITY
U. S GENERAL SALES AGENTS
Installations • Parts • Service
AMERICAN MACHINE & FOUNDRY COMPANY
261 5th AVE., NEW YORK CITY

tinuous dyeing and other textile machinery and equipment, feature leakproof, efficient operation of the cylinders and extremely low "break loose" pressures required to obtain smooth piston movement.

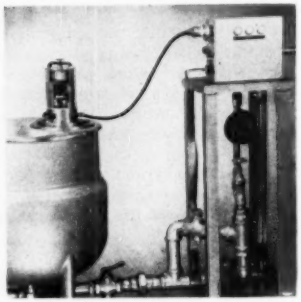
Other advantageous features of the cylinders are: piston rods are hard chrome plated to resist nicks, scratches and corrosion; dirt wipers at rod ends wipe rods clean of dirt and lint on every "in" stroke; cylinder barrels are non-corrosive, rustproof, honed hard brass tubing; construction throughout is extra rugged, with heads, caps and mountings machined from solid steel bar stock.

Miller Motor Company, 4027 North Kedzie Ave., Chicago, Ill.

For additional data, request item D-112, using business reply card on page 298.

Automatic Viscosity Control for Sizing System

A viscosity measuring, signalling and transmitting unit, designated the Brookfield Viscotrol, is designed for use where viscosity variations during production normally occur only in one direction and it is desired to



Viscotrol by Brookfield.

accomplish continuous and automatic viscosity control.

When installed on a size kettle, vat, or other production system, the device continuously measures and signals viscosity variations and also either automatically activates various means of returning the viscosity to an optimum value or automatically shuts down the process until the viscosity condition has been corrected.

Units are available to control any working viscosity from 2 to 50,000

centipoises, and the instrument will respond to any viscosity change within 1 per cent of the particular value for which it is set, according to the manufacturer.

Brookfield Engineering Laboratories, Inc., Stoughton, Mass.

For additional data, request item C-107, using business reply card on page 298.

Lighting for Wool Mills Subject of I.E.S. Study

"Lighting for Woolen and Worsted Textile Mills" is the title of a new report by the Illuminating Engineering Society, whose committee on this subject has just completed a detailed study of the lighting problem in this field. In this study 17 New England woolen and worsted mills participated, serving as laboratories for committee representatives.

Comprising 12 pages and cover, the report describes and illustrates the various operations from wool sorting through the finished cloth, recommending proper levels of illumination in each correlated with considerations of flexibility, installation, maintenance and production records. Single copies are available at 50 cents upon application to Publications Office, Illuminating Engineering Society, 51 Madison Ave., New York 10, N. Y.

Fluorescent Luminaires

New two and three-lamp industrial fluorescent luminaires with 2½ and 5-inch lamp spacing heavy duty lampholders are available. Starters are mounted in the lampholders, indexed to associated lamps, and accessible from within the reflector without removing the lamps. Available with open-end and closed-end porcelain enamel reflectors.

Westinghouse Electric Corp., P. O. Box 2099, Pittsburgh 30, Pa. (D-120).

Towing Tractor Need Not Be Ridden

A towing tractor which need not be ridden to be operated will tow ten tons on trailers over a level course at speeds from 1 to 6.5 mph. Designated the Clarkette 5, the unit is said to be unique since the driver can operate the machine while walking on either side of it, thus facilitating order selection work.

Clark Equipment Co., Industrial Truck Div., Battle Creek, Mich. (D-121).

Scales today provide vital accounting data that *directly affects your costs* . . . and *profits!* That's why it's so important to *control your costs* with TOLEDO accuracy!

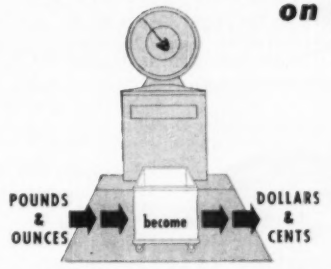
Your weight records originate at many points throughout your textile plant—in receiving, shipping and in production departments—supplying basic information that affects your inventories, receivables, payables and the final profit figure!

Toledo has the scales to start your cost records *right* . . . with dependable automatic weight indication to give the *speed* and *accuracy* essential to material and production control. Also, service as near as your telephone with factory-trained service men in 200 cities of United States and Canada. Send for bulletin 2020 on Modern Weight Control. Toledo Scale Company, Toledo 12, Ohio.

LAP SCALES

PRINTED WEIGHTS

MATERIAL becomes MONEY on your SCALES!



Errors made at the scale stay wrong forever. There is no chance to recheck; either the material has been shipped or has lost its identity in the general stock. You've got to be *right* —weigh it right with Toledo!

Guard Costs with
TOLEDO *All the Way*

Q. ***How do you get quick action when you need machinery?***

A. ***Contact Comer!***

Buying or selling textile machinery — any type from opening to finishing—requires contacts, both with those who want to buy and those who want to sell.

Comer Machinery has those contacts. Whatever your needs Comer can help you to more profitably dispose of excess machinery—or to buy needed equipment more economically.

From a single piece to the liquidation of an entire mill—two generations of experience makes contacting Comer the simplest solution to your machinery problems.

Call, wire or write Comer today.

"SALES AROUND THE WORLD"

COMER MACHINERY COMPANY

Cable Address: COMACH

308 Ivy Street, N. E.—Atlanta, Georgia, U. S. A. Tel. Cypress 2505

NEW EQUIPMENT (Continued)

High Capacity V-Belt

An oil-resisting, high capacity Super-7 Texrope belt with a 40% higher rating than the standard belt has been announced. It maintains the same stretch characteristics as a standard belt and has the same safety factor margin. Where specified, the belt can be made static resisting.

Allis-Chalmers Mfg. Co., Texrope Drive Dept., Milwaukee, Wis. (D-122).

Seventh Edition of Handbook on Flow Meter Engineering

A new and enlarged seventh edition of the handbook "Principles and Practice of Flow Meter Engineering" by L. K. Spink was recently published by the Foxboro Co., Foxboro, Mass. (price, $7.00). Much new and valuable material has been added, including a section contributed by R. L. Parshall, inventor of the Parshall Flume, giving design details, operating instructions, etc.

Liquid Cleaner for Electric Motors

A cold liquid cleaner particularly suited for use on electric motors and generators and effective for general machine and automotive maintenance was recently developed. Designated "Cleaning Mixture No. 49," it dissolves grease rapidly, evaporates quickly, and is practically inert to ordinary electrical insulating materials. Mixture is composed of 30% by volume of Du Pont's "Blend CC No. 49" and 70% of Stoddard's Solvent. Those desiring to prepare the mixture themselves may do so by purchasing the ingredients.

E. I. Du Pont de Nemours and Co., Inc., Wilmington 98, Del. (D-123).

Anti-Static Compound

Merix Anti-Static Compound No. 79-OL is reported to have been found to eliminate static charges and often give the finished product anti-static properties when added in small proportions to other compounds in warping and weaving operations involving certain fibers and plastic yarns. Where not included in the manufacturing process, these fibers and yarns can be made static-free by wiping or brushing the compound onto them, according to the manufacturer.

Merix Chemical Co., 1021 E. 55th St., Chicago 15, Ill. (D-124).

Booklet on Fatigue Allowance in Industrial Time Study

The Fatigue Allowance in Industrial Time Study is the title of a booklet recently published by Matthew A. Payne, 13777 Euclid Ave., E. Cleveland 12, Ohio (price $2.50). It presents and discusses problems associated with the purpose, determination and application of fatigue allowance in industrial time study.

Decals for Fire Extinguisher Identification

To help identify and locate the proper fire extinguisher in a hurry, three decal sets have been marketed for positive selection of three types of extinguishers for fires of: (1) wood, paper, rubbish; (2) electric, gas, chemical; and (3) of any origin except electrical. A large decal is supplied for application on the wall above the extinguisher and a smaller one for the extinguisher itself. Identification is by three methods: color code, design, and printed instructions naming proper use.

The Meyercord Co., 5323 W. Lake St., Chicago 44, Ill. (D-125).

Scoop-Shovel for Handling Loose Materials

A hydraulically operated Scoop-Shovel, which may be easily attached to the Lift King and Worksaver electric and gas fork trucks, eliminates manual shoveling when scooping, lifting, moving, and dumping coal, dry chemicals, and similar loose materials. Capacity of scoop, 27 cubic feet of material.

Yale & Towne Manufacturing Co., Philadelphia Div., Philadelphia, Pa. (D-126).

Combination Sheaves

Five new sizes of wide-range variable speed combination sheaves cover a range of speed and load capacities up to 7½ hp with speed changes as high as 7:1. Designed for use on fixed-center shafts, the 3, 4, 5, 6 and 7-inch single-groove sizes are each available in two types spring loaded and controllable. Features ease of installation and flexibility of control.

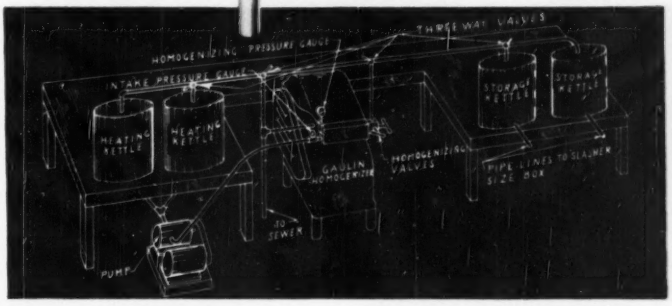
Speed Selector, Inc, 118 Noble Court, Cleveland 13, Ohio. (D-127).

Liquid Line Filter

A housing has recently been developed that allows the Marvel Synclinal Filter to be inserted into any pipe carrying non-corrosive liquids.

GAULIN HOMOGENIZERS

Save Time, Save Money in Size Preparation



One way you can beat today's high production costs is to install a Gaulin Size Homogenizer in your mill. This outstanding machine speeds up size preparation by practically eliminating cooking time.

In addition, Gaulin Size Homogenizers reduce the amount of starch required, lower heating costs, assure more uniform size, eliminate practically all shedding on slashers and looms. Advantages that result in savings quickly pay for the unit.

TYPICAL MILL REPORTS

"We can prepare our size in about one-seventh of the time formerly required."

"Gaulin Homogenizer has greatly improved our works . . . the savings in size ingredients alone make it a worthwhile investment."

"Shedding on slacker and loom has been reduced by 50%."

Get the full facts. Find out how you can save with Gaulin Size Homogenizers.

Gaulin TRADE MARK

MANTON GAULIN MANUFACTURING COMPANY, INC.

51 GARDEN STREET, EVERETT 49, MASSACHUSETTS

Southern Representative: 107 Atwood St., Greenville, S. C.

SEND COUPON TODAY

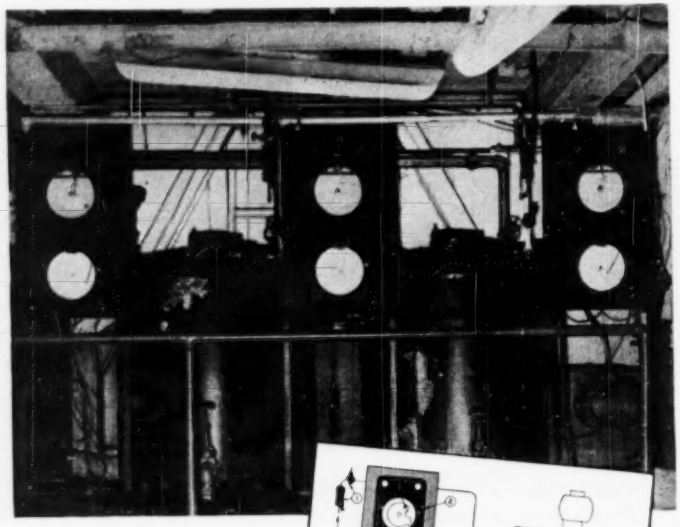
NAME .....

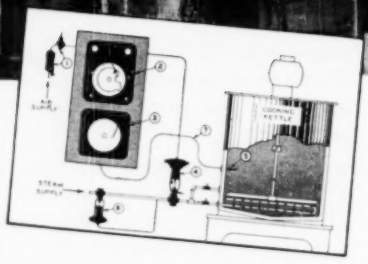
COMPANY ..... TITLE .....

CITY ..... STATE .....

MASONEILAN CONTROLS

"Eliminate the Guess" From Size Cooking





The Masoneilan "Time Program" Control Instrument automatically dictates the predetermined time schedule, the correct temperature rise, and maximum cooking temperature. It assures uniformity of size in cook after cook . . . eliminates guesswork because the process is controlled automatically from beginning of the rise to finish of the cook. It will pay you to investigate Masoneilan Controls for your mill. Send for new catalog.

Check These Advantages!

- **Automatic Control Program** — Accurate schedule of rise, temperature and time of cook.
- **Reduces Production Costs** — Saves time and keeps steam consumption at a minimum.
- **Records for Reproduction** — Provides the operator with recording on eight, twelve or twenty-four hour temperature charts.

MASON-NEILAN REGULATOR CO.

1194 Adams Street, Boston 24, Mass.

Sales Offices or Distributors in the Following Cities

New York • Syracuse • Chicago • St. Louis • Tulsa • Philadelphia • Houston • Pittsburgh • Atlanta • Cleveland • Denver • Cincinnati • Detroit • San Francisco • Salt Lake City • El Paso • Boise • Albuquerque • Charlotte, N. C. • Los Angeles

Mason-Neilan Regulator Co., Ltd., Montreal and Toronto

NEW EQUIPMENT (Continued)

Outstanding features claimed: serviceability, construction, versatility, no moving parts, operates with equal efficiency in any position. Wire mesh available ranges from a coarse 30 to a fine 200. Capacity sizes: 5, 8, 10, 20, 30 and 50 gpm. Greater capacities obtainable with multiple installations.

Marvel Engineering Co., 625 West Jackson Blvd., Chicago 6, Ill. (D-129).

Air Pump for Suction and Pressure Applications

Suitable for a number of applications, the Class 23 Series Air Pump is dry lubricated, completely eliminating discharge oil vapors. Displacement blades furnish their own lubrication and take up their own wear, according to the manufacturer. Blades are designed to be consumed after a reasonable length of time in continuous heavy duty service. Pump is fan cooled; operates at 1750 rpm normally; capacities, 5 cu. ft. per minute to 20.

Kraissl Company, Hackensack, N. J. (D-130).

Transformer Handbook Revised

The second edition of "Transformer Principles and Practice" by J. B. Gibbs has recently been published by McGraw-Hill Book Co., Inc., New York, N. Y. (price, $3.50). It deals with all aspects of the construction and use of transformers, including underlying principles, applications, connection, testing, care, and economics.

Trailer Wheels

A new range of heavy duty industrial trailer wheels and casters developed primarily for use on power towed equipment is available in both rigid and swivel types. The wheels are cast of prime aluminum alloy and specially constructed to reduce clutch wear, battery strain, and mechanical fatigue on power towing equipment. Other features: lifetime, sealed-in lubrication; sensitive swiveling action.

Aerol Co., Inc., 2820 Ontario St., Burbank, California. (D-131).

Stainless Chemical Container

Made of Armco Type 304 stainless steel, a new 15-gallon capacity chemical container is strong, long lasting, easily cleaned, and easy to handle. Reduced weight and smaller dimensions of this Lee container result in reduced freight costs, according to the manufacturer. Other features:

permanent identification by stamping user's name on top chime; complete drainage; and welded construction.

Steel Cooperage Co., 4801 Bellevue Ave., Detroit 7, Mich. (D-132).

Water Hardness Test

Total water hardness and the hardness caused by calcium alone may now be accurately measured by simple, easy methods in approximately one minute. The new Hagan Total Hardness Test, as it is designated, involves a simple direct titration with a distinct color change at the end point so that the possibility of error is eliminated. No heating, waiting, filtering or estimating is required.

Hall Laboratories, Inc., Pittsburgh, Pa. (D-133).

British Manufacturers Listed

The 22nd edition of the "F. B. I. Register of British Manufacturers" has been published by Kelly's Directories Ltd. and Iliffe & Sons Ltd., Dorset House, Stamford St., London, S. E. 1, England. It is an authoritative guide to sources of supply, listing nearly 6,000 firms and their products.

Flexible Stainless Hose

Corrosion resistant flexible stainless steel hose is now being manufactured in several types. This hose, able to withstand high temperatures and pressures, is used for conveying corrosive liquids and gases where motion is required. Extreme flexibility gives the hose the ability to withstand extreme cycles of vibration, flexation and variplane motions. Available in sizes from 5/16" to 6 inches I. D.

Chicago Metal Hose Corp., 1304 S. Third Ave., Maywood, Ill. (D-134).

Gearhead Electric Motors

An outstanding feature cited for an improved line of gearhead electric motors is that the motors can be mounted in any position. Other advantages: weatherproof design, higher efficiency due to an integrally built unit with helical gears, herringbone type rotor, and ball bearings lubricated for the life of the bearings.

Sterling Electric Motors, Inc., Los Angeles 22, California. (D-135).

Pocket Microscope

An improved 10 power pocket microscope for quality control and general plant use is known as the Hast-

Now... You Get a Printed Record ON THE NEW "PVR" PRODUCTIMETER

TEXTILE COUNTER

Available in STROKE and ROTARY Models

PRINTING LEVER

Can be used on all textile machines where counters are now applied.

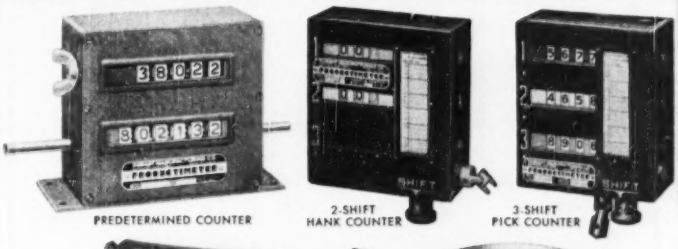
Visual Count and Printed Record of Your Plant Production

- provides certified record of pieces produced.
- eliminates illegible handwriting and error.
- decreases timekeeping and accounting time.
- prints multiple copies or single cards.

Durant Sales Engineers will be glad to demonstrate.

AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS — AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

TIME-TESTED COUNTERS OF THE TEXTILE INDUSTRY



PREDETERMINED COUNTER — 2-SHIFT HANK COUNTER — 3-SHIFT PICK COUNTER

ROTARY COUNTER — LINEAL COUNTER

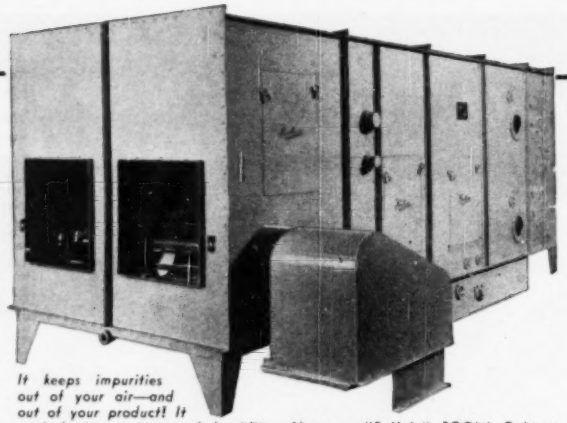
Send for Catalog No. 50

DURANT MANUFACTURING COMPANY

1973 North Buffum Street, Milwaukee 1, Wisconsin — 173 Orange Street, Providence 3, R. I.

Representatives in Principal Cities

PRODUCTIMETERS SINCE 1879 — Speedometers OF INDUSTRY

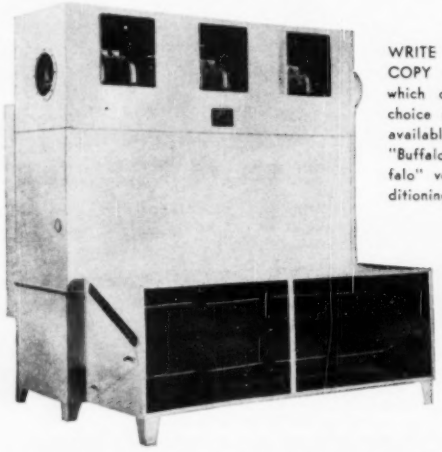


It keeps impurities out of your air—and out of your product! It controls temperature and humidity. Above, a "Buffalo" PCGW Cabinet, wet glass cell air washer.

AIR CONDITIONING BY "BUFFALO" IS A *Paying* PROPOSITION!

• IN QUALITY CONTROL • IN WORKER EFFICIENCY

THOUSANDS of industrial users are proving it! Because their air is clean, tempered and humidity-controlled, production and quality are both UP. Rejects due to airborne impurities or wrong humidity are *down*. Employees are healthier, safer, more productive. The right "Buffalo" Air Conditioning Units in *your* plant will pay you, too! And their simple maintenance, high efficiencies, and durability mean LOW operating costs. WHY NOT GET THE FACTS NOW? Don't risk profits for lack of dependable air control!



WRITE FOR YOUR FREE COPY of Bulletin 3703, which describes the wide choice of air conditioning available to you in the "Buffalo" line. Left, a "Buffalo" vertical central conditioning cabinet.

BUFFALO FORGE COMPANY

175 MORTIMER ST. BUFFALO, NEW YORK

Canadian Blower & Forge Co., Ltd., Kitchener, Ont.

Branch Offices in All Principal Cities

ings Triplet. Extreme brilliance of flat, color-free field is a feature of the device. For maximum protection against both attrition and chemicals, the three cemented lens elements are mounted in a hard finished aluminum lens cell protected by a stainless steel frame.

Stratex Instrument Co., 1861 Hillhurst Ave., Los Angeles 27, Calif. (D-137).

Synthetic Waxes

A new group of synthetic waxes is described as commercially pure products of the amide and ester types. They range in melting point from 133 F to 285 F. In general they are light colored, hard, non-tacky waxes although special plastic, adhesive products are also available.

Glyco Products Co., Inc., 26 Court St., Brooklyn 2, N. Y. (D-138).

Increased Strength in New Caster

Strength of the Bond 3-A Series single ball race swivel caster has been increased 33% by a new, improved design. According to the manufacturer, this added strength enables the caster to withstand greater impact shock and is extra insurance against breakage, resulting in much longer life. Possibility of material clogging in the sides of the caster has been greatly reduced by increasing the space between wheel and fork. Wheel sizes range from 2 to 6 inches in diameter.

Bond Foundry & Machine Co., Manheim, Pa. (D-139).

Industrial Water Standards

A.S.T.M. Standards on Industrial Water brings together in convenient form the various A.S.T.M. standard methods of sampling, analysis, and testing of industrial water used in the generation of steam or for process or cooling purposes, and for the examination of deposits formed from such waters. Copies can be obtained from American Society for Testing Materials, 1916 Race St., Philadelphia 3, Pa., at $1.75 each.

Detergency Fundamentals

Written by William W. Niven, Jr., research chemist and consultant, Midwest Research Institute, *The Fundamentals of Detergency* presents a carefully planned and authoritative picture of the principles of detergent action. It discusses: (1) the effects of composition, concentration, tem-

perature and added electrolytes on the nature and properties of aqueous detergent solutions; (2) the fundamental actions which constitute detergency and the role of detergents in aiding these actions; (3) the means of utilizing the various fundamental detergent actions in laundering, which is selected as a typical application. Published by Reinhold Publishing Corp., 330 West 42nd St., New York, N. Y. (price, $5.50).

Instruments Measure and Control Fluid Density and Specific Gravity

A new line of "Pycnorator" instruments for measurement and control of fluid density and specific gravity includes such designs as submerged float types for use in vessels under pressure or vacuum, open bubbler types, closed diaphragm and hydrometer types.

Fischer & Porter Co., Hatboro, Pa. (D-128).

Flashing Motion for Safety Messages

Safety messages which gain and hold attention by a combination of light and motion are made possible by a device known as the Flash-O-Graph. Messages are spelled out in bright dots of light which move along continuously like electric news bulletins. Unit measures 23 x 3 x 2". Flashing action is provided by a replaceable, endless, perforated tape which is illuminated by a fluorescent lamp. 52 standard tape messages are available and special messages can be furnished on request.

Mine Safety Appliances Co., Braddock, Thomas and Meade Sts., Pittsburgh 8, Pa. (D-350).

Vibration Damping Instrument Mount

A vibration damping, non-magnetic base is available for mounting delicate mechanical, optical, or electrical instruments. Designated the Instru-Mount, the device protects the instruments mounted thereon from vibrations with frequencies as low as 10 cycles per second.

The platform, made of reinforced concrete and measuring 22" x 12" x 2½", is mounted on four multi-plane shock absorbing units. Total weight: 50 lb.

Eberbach & Son Co., Ann Arbor, Mich. (D-351).

Handy Helper that gives you

Power

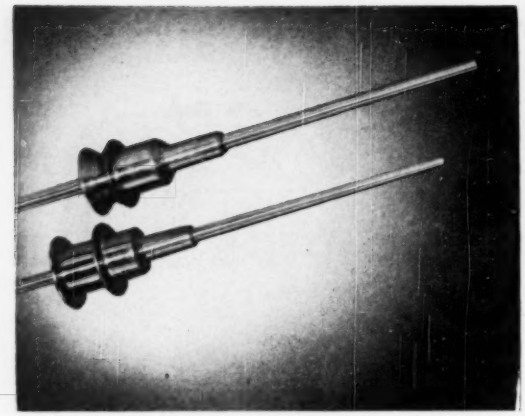
FOR HAND PIPE TOOLS

Model "400" can be furnished with legs, handy tool tray, feet and all fittings at slight additional cost.

RIDGID Model "400"
...lightest power unit made

● One man can move Model "400" around on the job. Weighs just a little over 100 lbs., plenty of power for hand tool threading, cutting, reaming. Universal motor — forward, reverse, light socket power. RIDGID 3-jaw chuck with chuck wrench ejector; self-centering workholder in rear turns with pipe. Sealed-in lubrication. Thousands of these Power Drives now in service. Buy one at your Supply House.

RIDGID
WORK-SAVER PIPE TOOLS
THE RIDGE TOOL CO. • ELYRIA, OHIO



WHORLS

- Band and tape drive
- Precision made
- Made to specifications
- Guaranteed

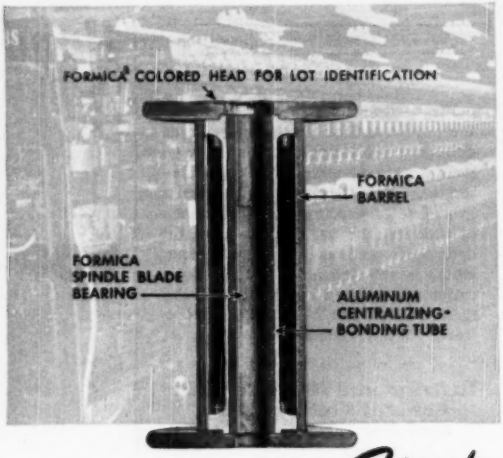
SPINDLES

- Retopped by electric butt welding or tops built up with chrome and re-ground to size
- Pointed, polished, straightened — as good as new
- All spindles tested for straightness and accuracy at running speeds

Investigate the advantages of Southern WHORLS and SPINDLE repairs. Write, wire or phone for full information.

50th ANNIVERSARY OF SERVICE
TO THE TEXTILE INDUSTRY

Southern
SPINDLE & FLYER CO.
821 W. FIRST STREET
PHONE 2-1329 CHARLOTTE 1, N. C.



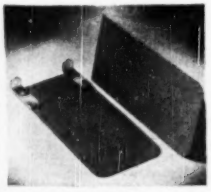
Another Formica First

GYROTEX BOBBINS

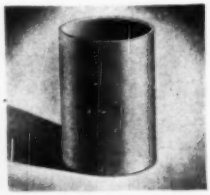
For Faster Production . . . Better Quality Yarn . . . Greater Profit

Gyrotex Bobbins are Formica's answer for today's new synthetic fibres. They match the capacity of modern man-made yarns for high-speed production that means greater profit.

A new departure in design, GYROTEX bobbins assure dynamic balance, complete freedom from distortion by heat and moisture, strength to withstand winding strains, light weight and flawless contact surfaces. Heads come in your choice of over 50 different colors for rapid identification. Write today for information on Formica GYROTEX bobbins and other parts for the textile industry. The Formica Co., 4694 Spring Grove Ave., Cincinnati 32, Ohio.



SEPARATOR BLADES . . . made from tough paper base laminated grades, assure highly polished yarn contact surfaces. Furnished with special hardware on order.



SIZING TUBES . . . accurately machined from Formica's paper base rolled tubing. High moisture resistance . . . high compression resistance.

Productive FORMICA at Work in Industry

YOU'RE WELCOME! Visit Formica booth 357 at the 1950 American Textile Machinery Exhibit, Atlantic City, May 8-12.

PERSONAL NOTES

ABOUT MEN YOU KNOW

N. Browne Glenn has succeeded Cal H. Strickland, deceased, as superintendent of the Appleton Company plant at Anderson, S. C. His former position as assistant superintendent has been filled by **Alphonso G. Williams,** who previously was overseer of the grey cloth department.

At a meeting early in February, **Charles D. McDuffie** was elected president of William L. Barrell Co., with headquarters in Boston, Mass. **Sallo M. Kahn** was made executive vice-president; **Edward J. Reilly,** vice-president in charge of the converting division; and **Rolliston W. Linscott, Jr.,** treasurer.

The Textile Research Institute has announced the appointment of **Andre Blumenthal** as chairman of its executive committee, succeeding Kenneth Wilson, vice-president of Forstmann Woolen Company. Mr. Blumenthal is vice-president of Sidney Blumenthal & Co.

At a recent meeting of the stockholders of Chatham Manufacturing Co., Elkin, N. C., **Raymond Harris** was promoted from general manager to vice-president, **Hugh C. Chatham** was made executive vice-president, **Fred L. Neaves** was promoted to general superintendent, and **E. M. Hodel** was appointed superintendent. Others elected were: **Thurmond Chatham,** chairman of the board; **J. H. Lassiter** assistant to the president; **J. A. Booher,** secretary; **W. R. Hartness, Jr.,** treasurer; **C. F. Dixon,** assistant secretary; **N. J. Blackwood,** assistant treasurer, and **Thomas M. Roth,** assistant superintendent.

Earle R. Stall was recently elected a vice-president of Cone Mills Corporation, Greensboro, N. C. Mr. Stall has been president of Florence Mills, a subsidiary of Cone Mills, since 1943.

Herbert Luber is now superintendent of Colgate Piece Dye Works, Hawthorne, N. J., going there from the Associated Dye & Printing Co., Paterson, N. J.

The Association of Cotton Textile Merchants of New York has announced the re-election as president of **W. Ray Bell.** The new vice-president is **George M. Miller** of Turner Halsey Co.; **Ridley Watts** of Mont-

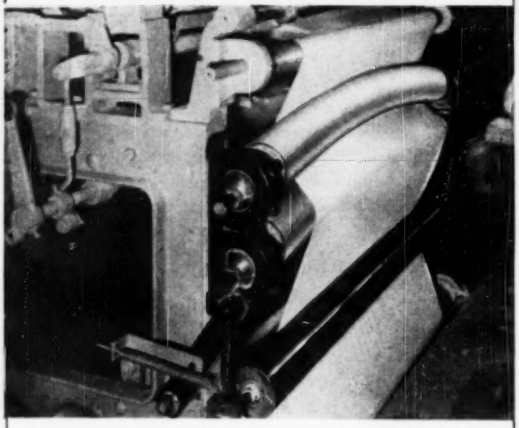
93,000
Round Trips
to the Moon!
on ALLEN Beams
Yarn processed yearly on Allen warper beams and beams using Allen heads is sufficient to reach to the moon and back 93,000 times. The overwhelming preference for Allen beams is based upon time-tested dependability and modern features that withstand roughest handling under today's heavy loads. Made for all models of high speed warpers.
GK—COTTON With Improved Cast-iron Inside Supports at ends, and three two-ply wooden supports between.
GN—NYLON, SYNTHETICS With five Improved Cast-iron Inside Supports as shown.
GR—RAYON With Improved Cast-iron Inside Supports at ends, and seven two-ply wooden supports between.
REQUEST CATALOG
ALLEN
COMPANY
Warper Beams — Loom Beams
Adjustable Loom Beam Heads
Allen High Speed Warper and Creel for all fibres
NAT. TEXTILE MCHY. EXHIBITION Booths 186-7-8-9
General offices — 154 River Road
New Bedford, Mass.
Representatives in all Textile Localities and all Principal Countries of the World.
"GOOD WARPS ARE MADE ON GOOD BEAMS"

You are invited to visit
Our Running Demonstration
in Booth No. 371
American Textile Machinery Exhibition
Atlantic City—May 8-12, 1950

Prevent Cloth Damage on Shearing Machines with

Mount Hope SLACK SELVAGE ELIMINATOR

Cloth Room men report, "New Mount Hope unit with two expanders and pivoted roll controls selvage slack—eliminates cut selvages on shearing machines".



Installation of Mount Hope Slack Selvage Eliminator on shearing machines. Courtesy of Woodside Mills, Greenville, S. C.

The above illustration shows one of the cloth room uses of Mount Hope free wheeling Expanders. This new Mount Hope Slack Selvage Eliminator is mounted on the entrance to shearing machine.

Wherever there's a cloth wrinkling and spreading problem, there's a Mount Hope Expander Installation to fit *your* requirements. Avoid costly slowdowns and spoilage due to wrinkles and slack selvages. Speed up your Cloth Room operation. A Mount Hope Engineer will be glad to advise you upon request.

SEND FOR BULLETIN SSEI TODAY.

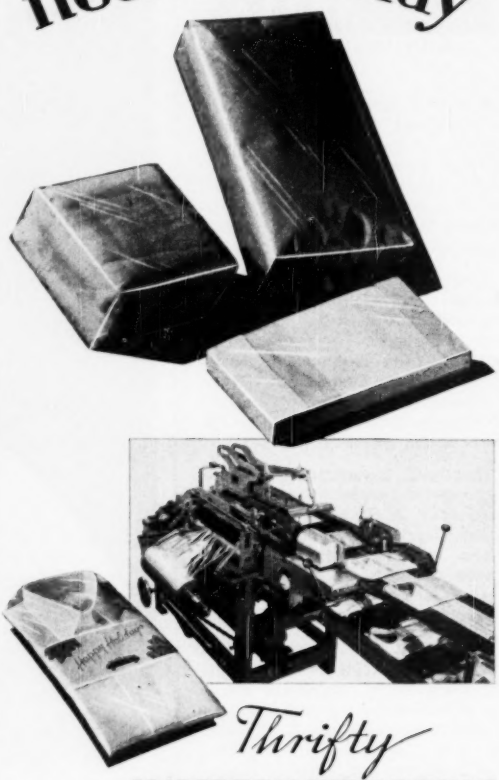
Cloth Handling Devices

MOUNT HOPE MACHINERY CO.

42 Adams St., Taunton, Mass.

Representatives — Parkman Collins Company, Boston—for Maine • Ingalls Engineering Company, Providence—for N. H., Mass., R. I., and Conn. • John H. Andresen, Inc., Paterson—for Southeastern N. Y., N. J., and Pa. • A. B. Julin, Watertown, New York—for Northern and Western N. Y. • Slaughter Machinery Company, Charlotte—for the South • S. S. Wilson, 1737 Howard St., Chicago—for Mid-West • Sidney Springer, Los Angeles—for California • W. J. Westaway, Ltd., Hamilton and Montreal—for Canada

neat and tidy



Thrifty
HAYSSEN WRAPPING

Many leading mills are using the Hayssen Textile Wrapper to wrap pillow cases, sheets, bolts of cloth, socks, diapers, cheese cloth, etc. Machines are available for wrapping materials such as cellophane, pliofilm, laminated cellophane, polythene or kraft paper. The Hayssen is a good investment, for it is low in initial cost . . . simple in design . . . sturdily constructed . . fully automatic . . . and keeps the unit-cost of wrapping at a low level. The Hayssen Electric Eye registers printed overwraps, and for marking packages, the Hayssen Top Labeler & Printer is available. Although the standard line of Hayssens meets most requirements, Hayssen engineers are always ready to build special designs. Write today for details and the name of your Hayssen representative.

IT PAYS TO WRAP
THE HAYSSEN WAY

Hayssen
ELECTRIC EYE WRAPPING MACHINES

HAYSSEN MFG. COMPANY • SHEBOYGAN, WISCONSIN

gomery Textiles, Inc., was made treasurer, and **John L. Severance** was re-elected secretary.

In addition to being vice-president of Mills Inc., Providence, R. I., **J. Milton Brindley** has become controller of The Apponaug (R. I.) Co., a subsidiary of Mills.

Coleman B. Conway, associated with Danville (Va.) Knitting Mills since 1915, has been named president to succeed Louis Herman, deceased. **Allan F. Patton** was named chairman of the board; **William D. Overbey,** vice-president; and **Lawrence P. Moss,** secretary and manager of labor relations.

The American Enka Corporation has announced the election of **John E. Bassill** as president, to succeed the late O. L. Alexander. Mr. Bassill

Mr. Bassill

was formerly executive vice-president and has been active in rayon industry for many years. **Colonel Franklin D'Olier** of New York was named chairman of the board of directors.

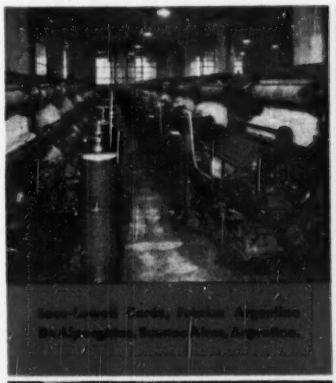
A. G. Singleton, previously with Deering Milliken Co., has been made director of plant engineering for the Fieldcrest Mills at Spray, N. C. **O. D. Petty,** comptroller of the Fieldcrest Lace Curtain Mill at Zion, Ill., and previously chief accountant at Spray, has been made acting manager at Zion. Mr. Petty replaces **Edward W. Medberry,** now production manager of all the Fieldcrest plants, with headquarters at Spray.

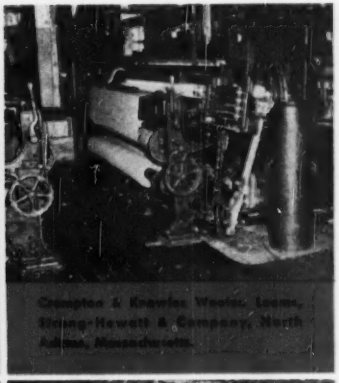
T. A. McNeill, formerly with Dan River Mills, Inc., has been made superintendent in charge of Glendale Mills, Inc., Douglasville, Ga.

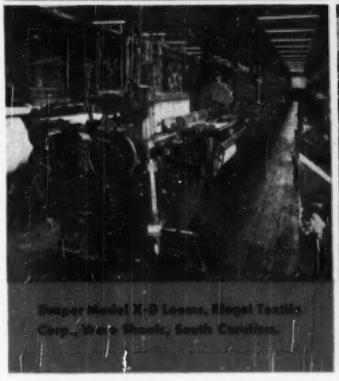
Paul E. Bowie, Jr., has succeeded **Carroll A. Campbell** as superintendent of the Woodside Mills plant at Liberty, S. C. Mr. Campbell resigned to accept a position with New York & New Jersey Lubricant Co.

Guild-Northland Mills, Laconia,

They Are ALL Mounted on UNISORB®







and Everybody Knows Why!

BOOTH NO. 39, AMERICAN TEXTILE MACHINERY EXHIBITION

THE FELTERS COMPANY

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NAME ..... TITLE .....
COMPANY NAME .....
STREET .....
CITY ..... STATE .....

N. H., have announced the appointment of **Albert Williams** as president.

Macon (Ga.) Hosiery Mills, Inc., has announced several personnel changes. **James H. Brenner,** assistant treasurer, has been appointed sales manager; **Koren C. King** is now plant superintendent; and **Floyd E. Guthrie,** formerly with the Graham Hosiery Mills, was made full-fashion production superintendent.

Charles E. Haight is now executive vice-president of Millburn Mills, Inc. His own firm, Charles E. Haight, Inc., has been liquidated.

The Owens-Corning Fiberglas Corporation scholarship for two years of study has been awarded to **George W. Fox,** a junior in the School of Textiles at North Carolina State College.

James H. Kennedy, Jr., a member of the teaching staff at Lowell Textile Institute for 25 years, has been promoted to a full professorship and head of the woolen and worsted yarn department of the Institute.

St. Mary's (Ohio) Woolen Manufacturing Co. has announced the appointment of **Harris Whitaker** as merchandising manager.

Sam Overcash has been made a shift overseer of weaving at Schneider Mills, Taylorsville, N. C. Other shift overseers are **Thomas Bridgman,** formerly of Celanese Corp., and **Jack Engram,** who had been with Thomaston Mills. **Marcas Mack Deal** is now overseer of slashing, warping, and winding, and **Mrs. Helen Fulbright** is overseer of grading of grey goods.

Swift Spinning Mills, Columbus, Ga., has announced the election of **A. Illges** as president, succeeding **Clifford J. Swift,** who is now chairman of the board. **Henry W. Swift** is secretary and **M. C. Jackson,** assistant treasurer. Mr. Illges continues as treasurer.

D. J. Whitaker, associated with Washington Mills Company, Fries, Va., since its completion in 1903, and presently superintendent, has announced his retirement.

After twenty-one years of service, **Grady W. Bowers,** production supervisor, has retired from Wellington Sears Company for reasons of health. He will be succeeded by **Virgil H. Hampton,** former production manager of Fairfax (Ala.) Mill Division of West Point Mfg. Co.

The new manager at Hockanum Mills division of J. P. Stevens & Co., Rockville, Conn., is **Walter L. Goddard** who formerly was manager of the American Woolen Company's Wood Mill in Lawrence, Mass.

Hathaway Manufacturing Co., New Bedford, Mass., has several new members on its staff. **Lucien G. Pelletier,** in charge of the rayon division, was formerly with the Verney Corporation plant at Granby, Quebec; **Richard H. Blasdale,** previously with Stocker Associates, is now chief of the production engineering department; and **William H. Poisson** came from Burlington Mills to be laboratory assistant in charge of rayon testing.

At the annual meeting of the western district of the Knitted Outerwear Manufacturers Association the following officers were elected: **Edward H. Kemper,** of Kemper Knitting Mills, president; **Sam Straus,** of Straus Knitting Mills, vice-president; **Max Karger,** Eagle Knitting Mills,

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Stops Cloth Spoilage In the Weave Room

Losses from oil spot "seconds", if unchecked, can cut very deeply into profits. That's why 7 out of every 10 mills have changed from ordinary oil to NON-FLUID OIL . . . the drip-less, waste-less lubricant that stays in bearings and off goods.

NON-FLUID OIL saves its own cost many times over by checking oil damage. And it offers still further savings by outlasting oil 3 to 5 times, thereby reducing lubricant and application costs.

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AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

"VISIT US AT BOOTH 42"

secretary-treasurer. The retiring president, **Joseph Lauderman** of the Marinette Knitting Mills, was elected to the group's executive committee along with **Ed Kalfahs** of Jersild Knitting Mills.

Obituaries

John H. Cheatham, 67, president of Dundee Mills, Rushton Cotton Mills, and Hartwell Manufacturing Co., all in Georgia, died suddenly on February 18. He was a past president of the American Cotton Manufacturers Association and active in many other textile organizations.

On February 16 **George S. Harris,** 69, who had been in ill health for some months, died in Danville, Va. Mr. Harris was chairman of the board of Dan River Mills, Inc., and past chairman of the Cotton-Textile Institute.

Frank W. Clow, 83, of the Clow Hosiery Co., Laconia, N. H., died recently.

George Cohen, 53, associated with Beaunit Mills, Inc., and in the fabrics business for many years, died recently.

On February 9 **Howard R. Crawford,** 62, died of a heart attack. Mr. Crawford was vice-president of National Automotive Fibres, Inc., having joined that company in 1928.

After a three weeks' illness **Emory O. Damron,** 61, salesman for Southern Spindle & Flyer Co., Charlotte, N. C., died early in February.

Chester L. Eddy, 69, who operated the Eddy Chemical Co. for the past seven years, and was formerly associated with the Renfrew Bleachery, died recently.

Nelson K. Fite, 42, of Krout & Fite Manufacturing Co., Philadelphia, Pa., was killed on February 14 in an automobile collision.

Walter Meyer, 53, president of Burlington Mills Ribbon Corp., died recently in New York.

Andrew Schoen, 56, associated with the General Aniline & Film Corporation, Easton, Pa., and an authority in the field of photochemistry, died on February 2.

On February 5 **H. A. H. McGill,** managing director of Platt Bros. (Sales) Ltd., Oldham, England, died. Mr. McGill had been associated with the textile machinery industry since 1922.

John B. Venturini, associated with the Cameron Machine Co., Brooklyn, N. Y., since 1914, died on February 4 at the age of 69.

At the age of 66, **Ted E. Raht,** vice-president of Swift Spinning Mills, Columbus, Ga., died on February 6. Mr. Raht was with the mills for 41 years.

Fletcher P. Thornton, first vice-president and a director of Stowe-Woodward, Inc., Newton Upper Falls, Mass., died suddenly on December 18.

After a long illness **Herman J. Klerx,** general manager of Widder Bros. Mills at Emmaus, Pa., died recently.

Jacob A. Goodman, 64, chairman of the board of directors of National Associated Mills, Inc., died recently of a heart ailment. Mr. Goodman was a founder of Real Silk Hosiery Mills, Inc.

William H. Newburn, 55, of York St. Flax Spinning Co., died suddenly at his home in Oradell, N. J.

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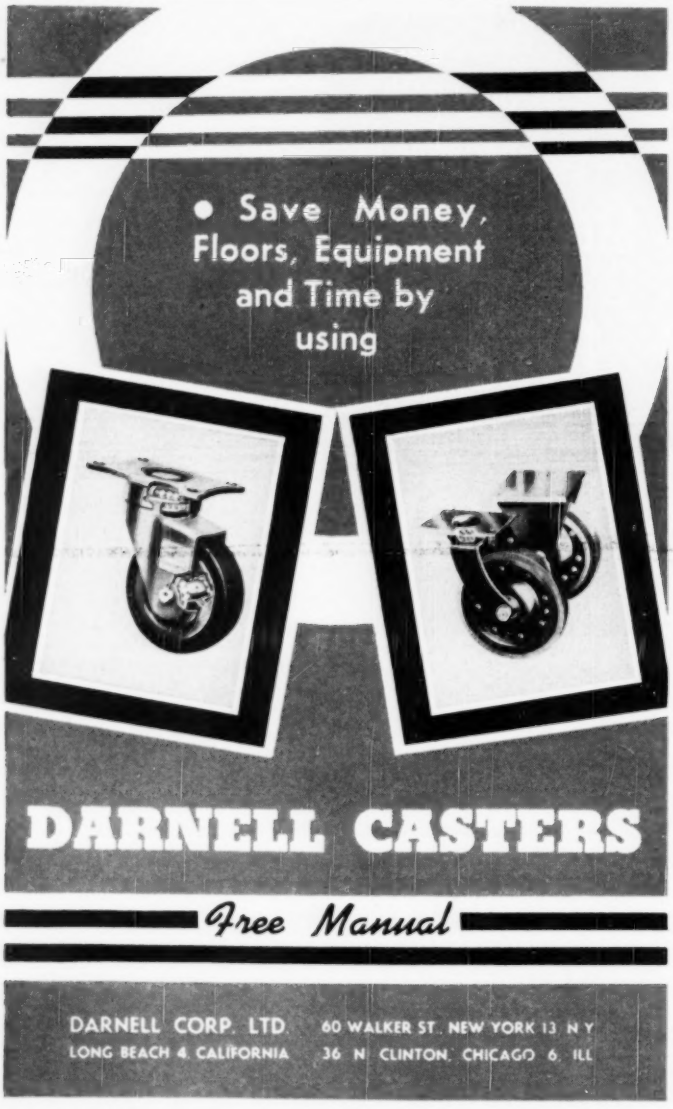
WHAT THE

TEXTILE MILLS

ARE DOING

Douglas Mills, Inc., Douglasville, Ga., has been purchased by J. L. Stifel & Sons, Inc., which also operates Glendale (S. C.) Mills, Inc. The mill at Douglasville will be known as the Douglasville Division, Glendale Mills, Inc., and it is expected that production of print cloths will begin at an early date.

An addition to its mill is being planned by **Pepperton Cotton Mills, Inc.,** Jackson, Ga., at a reported cost of over $100,000. Improvements in the present building are contemplated.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Free Manual
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36 N. CLINTON, CHICAGO 6, ILL.

Collins & Aikman Corp., Philadelphia, Pa., has announced plans for the construction on an addition to its branch mill at Farnham, Quebec, known as Collins & Aikman of Canada, Ltd. The project will represent a large investment.

Edward P. Carpenter is president of **Campbell Wool Corp.,** 9 Melcher St., Boston, Mass., which has recently been chartered to operate a wool sorting and processing plant.

Farrington Texol Corp., 2000 Main St., Walpole, Mass., has recently been chartered to operate a local mill as a subsidiary of **Farrington Manufacturing Co.,** Boston, Mass. Saul L. Makrauer is president.

Burlington Mills Corp. has let contracts for one-story additions to its weaving mill at Greensboro, N. C., and to the Ossippee (N. C.) Weaving Co. Expansions in the weaving departments will be accomplished by these additions.

Cartex Mills Division, **Carlton Yarn Mills, Inc.,** Salisbury, N. C., is planning expansion of its picker room by the erection of a one-story addition to the plant.

Isaac G. and Simon Chorney, 27 Eaton St., Providence, R. I., are principal incorporators of a recently chartered firm, to be known as **J. Chorney & Co.,** for manufacture of worsted yarns.

Plans are under way by **Clearwater (S. C.) Manufacturing Co.** for expansion of its mill at Old Fort, N. C., to provide for increased capacity for dyeing and finishing rayon fabrics.

Kendall Mills, Newberry, S. C., are considering construction of a new mill, which will include a one-story building and several auxiliary structures. It is reported that the cost will be around $1,000,000, with equipment.

J. B. Martin Co., Norwich, Conn., is planning a one-story addition to its Canadian branch plant at St. Johns, Quebec, at a reported cost of over $60,000, including equipment.

Downs Carpet Co., Philadelphia, Pa., has leased space in Chicago, Ill., for a new factory branch, storage and distributing plant.

Henry Myer Thread Manufacturing Co., Chicago, Ill., is now occupying space in two buildings, due to expansion.

Ira E. Newman, formerly connected with Holyoke (Mass.) Fabrics, Inc., is president of the recently organized

Newman Yarn Mill, Inc., Methuen, Mass., manufacturers of worsted yarn.

Kilburn Mill, New Bedford, Mass., is discontinuing its spun rayon yarn division and will concentrate production on sewing thread and knitted cloth.

Alexander Dreblat is president of **Nemo Textile Corp.,** Worcester, Mass., which has been chartered to operate a bleachery, dyeing, and finishing mill.

A one-story mill, to cost approximately $100,000, with equipment, is planned by **Martin Corp.,** Bridgeton, N. J.

A one-story building, approximating 15,000 sq. ft. floor space, has been leased by **Paterson (N. J.) Dyeing & Finishing Co.** for a new silk and rayon dye and finish works. Arthur Lovell heads the new concern.

William Hoblitzell and John Ledford, Andrews, N. C., head the newly chartered **L. & H. Textiles, Inc.,** which will operate a mill for manufacture of cotton yarns.

A new office building at Greensboro, N. C., is being planned by **J. P. Stevens & Co., Inc.,** to be used as headquarters for all southern interests of the firm.

Contract has been let for construction of a one-story addition to the High Point, N. C., weaving mill of **Burlington Mills, Inc.**

Valdese (N. C.) Manufacturing Co., Inc., is planning expansion in its processing department by the addition of a one-story building to the mill.

John Woodhead, Jr., East Providence, R. I., is principal incorporator of the newly organized **Melwood Fabrics, Inc.,** Pawtucket, R. I. Rayon fabrics will be manufactured.

A general contract has been let by **Dixie Mercerizing Co.,** Lupton City, Tenn., for a two-story addition to its building, reported to cost $175,000, with equipment.

The dyeing, bleaching, and finishing equipment at **Textile Printing Co. of Warren, Inc.,** Bondville, Mass., is being liquidated and the company is expected to reopen as a screen printing plant, according to reports.

Guy Van Duyse, formerly of Ghent, Belgium, has purchased **Gloria Silk Co.,** Paterson, N. J., and is planning to manufacture silk brocades. Curtis Goodrich will be manager.

A new firm, chartered as **Copland-Fowler Industries, Inc.,** has been organized in Burlington, N. C., for manufacture of fabrics for ladies lingerie. J. R. Copland, Sr., is one of the incorporators. The new plant will be located at Hopedale, N. C.

The new **Cranston Print Works** plant in Fletcher, N. C., is expected to reach full production by fall. John Gregory is resident manager.

Plans are under way by **Duplan Corporation** for the construction of a million dollar rayon and nylon processing plant near Burnsville, N. C.

Gonzales (Tex.) Cotton Mill has purchased the **Texas Textile Mills** of Dallas, Tex., which is making twills, drills and osnaburg.

Plant No. 6 of **Erwin Cotton Mills, Inc.,** Durham, N. C., will have a two-story addition, according to present plans. Bids have been asked for its construction.

The capital fund of **Textile Research Institute, Inc.,** was recently enriched by a gift of $20,000 made by Burlington Foundation, a trust estab-

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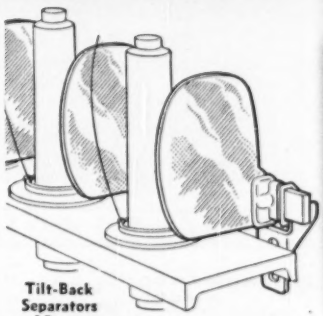
WHITEHEAD *Permalite* ALUMINUM ALLOY SEPARATOR SHIELDS

Why burden your frames—and your overhead—with heavy, old-fashioned iron separator shields? Whitehead Permalite Shields are made of a special aluminum alloy—strong as steel but many times lighter. They mount right on the ring rail and can be flipped back for doffing . . . And with all their superiority, they cost no more!



Tilt-Back Separators 15c up

Stainless Steel Available for Rayon Spinning

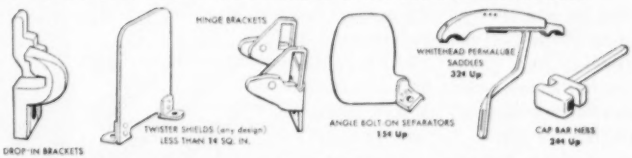
EASY TO INSTALL Simply drill and tap ring rail. We supply the shields and bar drilled to your gauge and ring count, together with proper support hangers and all screws and washers.

EACH JOB ENGINEERED When ordering specify rail width, thickness of back flange, gauge and number of rings in each rail on one side only, as 24-22-22-22-24.

ONLY WHITEHEAD PERMALITE SHIELDS OFFER THESE ADVANTAGES

- Fewer ends down: some mills report 27% less
- Use of lighter travelers which reduce power costs, wear of rings and travelers
- Solid polished blades (not slotted) which cause less wear on yarn, collect less lint and fly, resulting in smoother yarn
- Less vibration, wear of cams, worm gears and lifter-rod bearings
- Reduction of live weight—from as much as 300 lbs in old slotted steel shield assemblies to as little as 35 lbs per frame
- No attention after installation

OVER 4,000,000 IN USE BY MORE THAN 350 AMERICAN MILLS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ERWIN PLANT NO. 8 WINS SAFETY PLAQUE

With a total of 1,092,432 man-hours worked in 1949 without a single lost-time accident, Erwin Cotton Mills' Plant No. 8 at Stonewall, Miss., won the Erwin Safety Plaque.

In the photo above, Mrs. Dean Denham, an employee of Plant No. 8, is shown holding the plaque, while M. R. Hardin (left) resident manager, looks on. W. H. Ruffin, right, president of the mill group, made the presentation at a ceremoney in Erwin Park at Stonewall, with all of the plant's 700 employees in attendance.

lished by Burlington Mills Corporation. The money is expected to be used for property and equipment for the Institute.

It is reported that a considerable expenditure of funds is planned by **Berkshire Fine Spinning Associates, Inc.,** Providence, R. I., for expansion and improvements to its various mills. More than $1,000,000 was spent in 1949 for new equipment, and 1950 plans are even greater.

Operation of the former Patterson (N. C.) Mills, Inc., has been taken over by **Valley Mills, Inc.** President of the new firm is S. K. Beal of Lincolnton, N. C. M. G. McIntyre, formerly with Rhodes-Rhyne Manufacturing Co., is vice-president.

Plans are under way by **Johnson and Johnson,** makers of surgical dressings, for construction of a research center near New Brunswick, N. J.

C. K. Turk Corporation of South Bend, Ind., has acquired the **Woodstock Mill** property at Anniston, Ala., and will operate the plant as Woodstock Enterprises, Inc. Elbert Pride, executive vice-president of the corporation, is plant manager.

Broken Picks?

● The reduction of broken picks is one of the features of the Nash No. 79. Running quills through keeps them in perfect condition . . . assures clean, smooth quills at all times, free from sharp surface projections and burnished to a high, dry luster.

No harsh abrasive action is employed during the operation and the original finish coating of the quill remains intact. All dirt is removed from grooves and the resultant polish has a surface free from any deposit. Repeated polishing of quills through the Nash No. 79 will in no way damage the quills or reduce their life.

Write for complete descriptive literature.

We also manufacture Nash 88 and Nash 37 Automatic Refinishers for throwing bobbins.

NASH 79 AUTOMATIC QUILL POLISHER
For Refinishing Loom Bobbins

Write for complete descriptive literature

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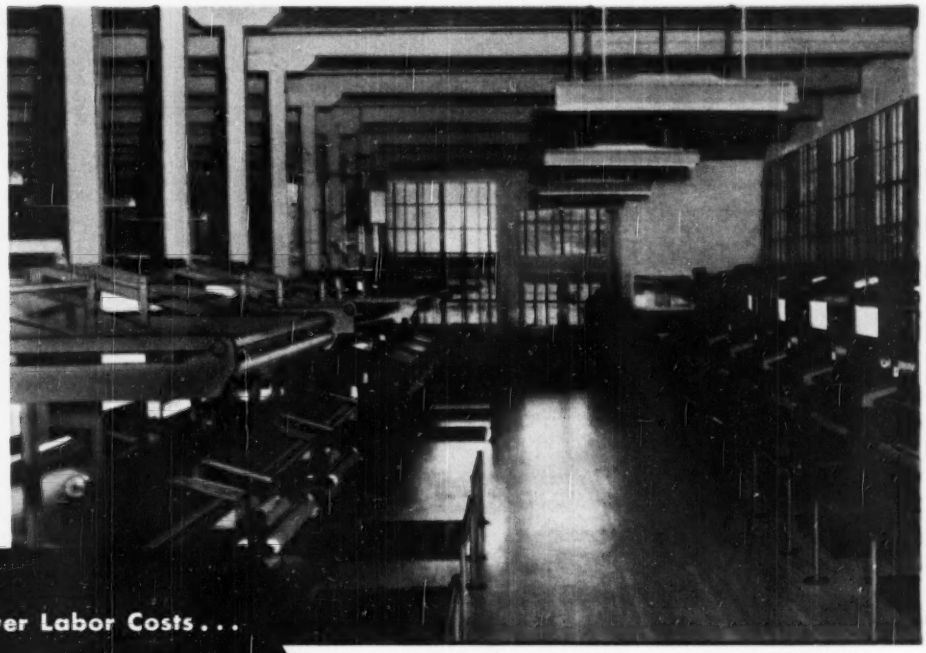

Lower Labor Costs . . .

Better Production . . .

Improved Morale . . .

Vast areas feature cloth inspection room after repainting with COLOR DYNAMICS.

Pittsburgh COLOR DYNAMICS

benefits workers and management alike in Dover Mill Company Plant

WHETHER you manufacture durable products or soft goods your plant will benefit in many ways by using Pittsburgh COLOR DYNAMICS.

Actual experience in many industries with this new painting system based upon the *energy in color*, proves that proper "color engineering" improves quality and quantity of output, the cost of production and the well-being and safety of workers.

● **These advantages** are once more demonstrated in the plant of the Dover Mill Company, of Shelby, N. C., manufacturer of quality figured and plain dress goods made of cotton and synthetic fibers.

What COLOR DYNAMICS has accomplished for management and employees alike is best summarized by J. R. Dover, President and General Manager of this company.

● **"A few months ago,"** writes Mr. Dover, "we painted the interior of our cloth inspection room, using a COLOR DYNAMICS plan specified by Pittsburgh. The results in greater efficiency have proved extremely gratifying.

"In an operation such as inspection of textiles, the element of eye-fatigue among operators is a serious one. In "color engineering" this room according to COLOR DYNAMICS, a color arrangement was used that would reduce outside glare and at the same time provide eye-rest areas for the purpose of lessening eye strain and the nervous tension to which it often leads.

● **"We also found** that the color scheme aided materially to improve housekeeping. This is important in a room which must be kept extremely clean for the handling of goods prior to shipment. An added benefit, although more difficult to measure, is the marked improvement in morale among our employees.

"Distinct demarkation of hazard areas, such as elevators, storage racks and heavy rollers, with *safety colors* has also decreased danger of accidents.

"As far as our experience is concerned, we have found the results of COLOR DYNAMICS entirely satisfactory."

You can get a COLOR DYNAMICS Engineering study of your plant – FREE!

Your plant, may be made more efficient and a better place in which to work with COLOR DYNAMICS. For a complete explanation of what this system is, send for our free, profusely-illustrated booklet. Better still, let us explain exactly how to apply it in your plant. We'll gladly submit a scientific color engineering study *free* and without obligation.

There's a trained COLOR DYNAMICS expert at each of our 75 warehouses. Call your nearest Pittsburgh Plate Glass Company branch and arrange to have one of their representatives see you at your convenience. Or send this coupon.

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Especially designed and most practical for winding Rayon, Nylon and other filament yarns—for delivery to the knitting machine or for magazine creeling... The 3° 30′ is available in lengths of 6, 6¼ and 7 inches and in light, medium and heavy weights.

Velvet or Unitex Surface

AUSPICES OF AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12 1950

BOOTHS 71-72

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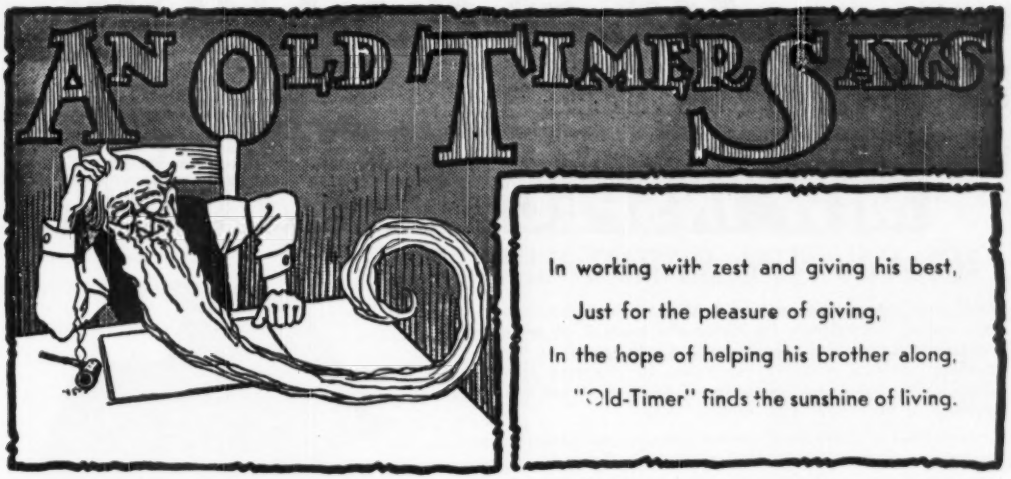
AN OLD TIMER SAYS
In working with zest and giving his best,
Just for the pleasure of giving,
In the hope of helping his brother along,
"Old-Timer" finds the sunshine of living.

Can You Dream?

This discussion is continued from the March issue.

NOW SUPPOSE we shoot off in another direction and see what large manufacturing firms think of Imagination—how they use it—why they spend hundreds of thousands of dollars in promoting Imagination and then spend additional hundreds of thousands of dollars in telling everybody about it.

In a full page ad—the great Chrysler Corporation takes all the printed space in explaining the special advantages of their "superfinish" which was developed by Chrysler Corp. experts. Research discovered that certain car parts lasted longer when hand-finished than when finished by the best mechanical methods. However, hand-finishing is expensive. Could they invent a machine that would duplicate or improve on slow hand work? They did. The result is Superfinish—a method of finishing far more smoothly than ever before possible.

Superfinish allows closer fit. Wear is cut to a minimum, thereby adding many months of trouble-free service for the car's moving parts.

Now listen, Mr. Overseer, Superintendent, Manager of textile plants, to what the Chrysler Corp. says:

"This great development is another example of how we apply *practical Imagination* to make our cars the most advanced of all, year after year."

Please note they say "another example" of how they apply practical Imagination. They are using Imagination in many other ways.

Now OLD-TIMER is asking you readers that if a great corporation can profit by using practical Imagination, in fact spend hundreds of thousands of dollars to *develop* Imagination, is it not about time you were doing something to develop your Imagination to enable you to "Beat the Other Fellow"—to step your salary up into another tax bracket?

Questions are sometimes pretty good prompters to start your Imagination to working. Ask yourself questions about your work—about your labor relations problems—if you have no problems—find some. For example: What makes a man *want* to work? Well, maybe he doesn't *want* to work, but he should, so what are you doing to make operatives *want* to work? Do your operatives prefer working in your mill to some other mill? Do they *want* to work for you?

Just remember, brother, that you do not have to be a college graduate to be able to develop your Imagination. Remember the self-educated man like the superintendent we told you about in a recent article where we reported on three mills? A man like that superintendent who has developed his creative Imagination has a greater chance for success as a textile executive or operating executive than a graduate from the finest university who has not developed his creative Imagination

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MOTORIZED BRUSH
MIW INSPECTING MACHINE

NEW TENSIONLESS, CONSTANT-SPEED MEASURING AND EXAMINING MACHINE

MIW measuring and examining machine has a hydraulic variable speed transmission for automatic control of separate motors on let-off and take-up rolls. Cloth speed on the inspecting table is constant, regardless of changing relative sizes of rolls. Speed adjustable for 15 to 60 yards per minute. Machine is equipped with reverse wind.

Since tension is eliminated, normal pickage and thread count are preserved, even with light, loose fabrics. Takes 36" diameter rolls of cloth. When used for tubing gives variable speeds up to 100 yards per minute.

Also See Our Standard AV Shear
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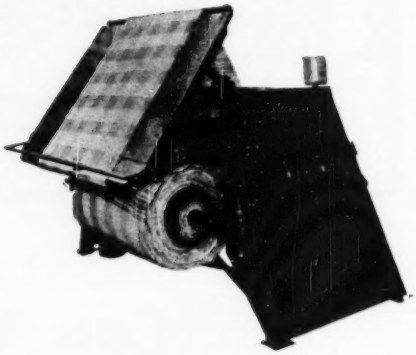
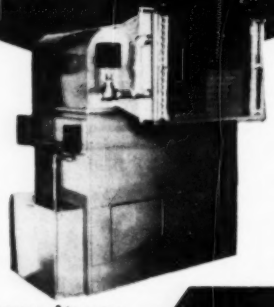
HERMAS MACHINE COMPANY
Hawthorne *America's Only Exclusive Specialists in Clothroom Equipment* **New Jersey**



New MIW Inspecting Machine

Announcing

AIR-PERME-ATOR
"Dry" Humidification
MODEL B-5



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- *YEAR 'ROUND TEMPERATURE CONTROL (heating and cooling)*

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- Cotton
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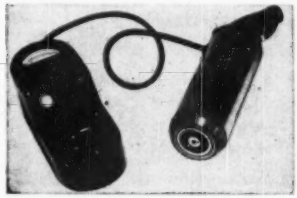
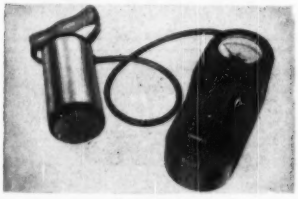


MODEL PD-1
for textiles in loose or compressible forms—3" penetration.



MODEL K-2
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or who has failed to put his Imagination to work.

No Special Gift

Creative Imagination is no special gift to any human being. It is true, of course, that it may be easier for some men to develop or make their Imagination grow faster or easier or with less effort than other men. So it is easier for some men to learn the multiplication table than other men, but you or any normal man *can* learn the multiplication table, can't you? Sure you can—then what in heck are you waiting for, if you don't start *now* to develop your creative Imagination?

We know you have seen Imagination work like this little joke worked:

A distinguished biologist dissected an alligator before a class in biology. Then entertained at a dinner that evening.

"How do you like the soup," asked the biologist after having finished his own plate.

"Excellent," replied one guest. "Turtle, is it not?"

The biologist shook his head.

"I think it has a peculiar taste, but not unpleasant," spoke up another guest.

"All alligators taste peculiar," replied the biologist, "like the fellow we dissected this morning and whom you have just been eating."

Some guests turned pale and several left the table.

See how Imagination works fellows. The soup was really a well known brand of canned meat soup.

(*To be continued*)

Draft Formulas

(*Continued from page 170*)

cording to formula (3).

$$d_1 = 3d(Cts) + 3$$

3. Calculate total draft according to formula (4).

$$T = d_1C\,[3d_1C(Cts) + 3]$$

(b) Break draft $= (d)(d_1) =$

$$\frac{(T)\,(d)}{C\,[3d_1C(Cts) + 3]}$$

(c) Break draft $=$

$$\frac{(T')\,(d)}{C\,[3d_1C(Cts) + 3]}$$

Conclusion. The draft formulas

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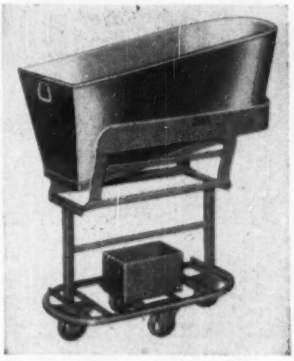

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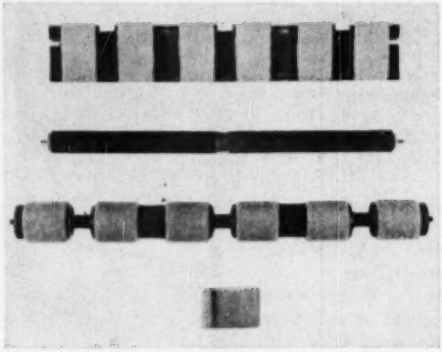

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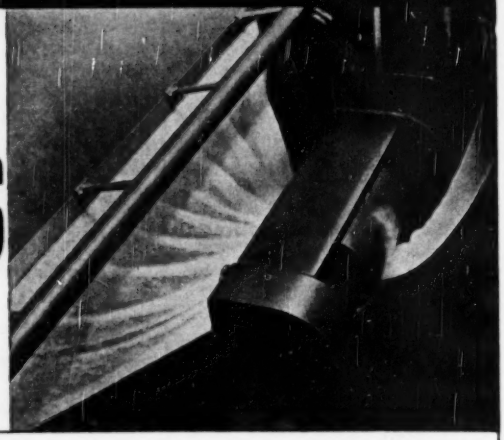

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given are depicting the approximate lower limit which may be used for long cotton. Short cotton may have slightly higher drafts.

In addition to the foregoing we may designate an upper range of drafts as a safety limit for permissible drafts. This upper limit, conforming to practical data, seems also to be a parabola, with its vertex at d = 2.2.

For the upper limit drafts these data suggest the following formulas:

$$d_1 = 3.8\sqrt{d(Cts)} + 2.2$$

$$T' = d_1C(3.8\sqrt{d_1C(Cts)} + 2.2)$$

and,

$$B' = \frac{(T')\ (d)}{C(3.8\sqrt{d_1C(Cts)} + 2.2)}$$

It follows that for any given total draft, T", above or below within reasonable limit, for this upper range, the corresponding break draft is

$$B' = \frac{(T")\ (d)}{C(3.8\sqrt{d_1C(Cts)} + 2.2)}$$

Film Aids for Textile Education

(Continued from page 201)

Your Tell-Tale Voice
1947 20 min sd loan AT&T
Opens with a dramatic sequence showing how people's words and voices can affect, sometimes falsely, our impressions of them. The scenes revolve around the operating experiences of six girls working at various types of telephone switchboards.

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(Employment and Induction)

I Want That Job
si 157 fr with Guide $5 (rent $1.50) Harmon
Purpose is to guide one's thinking and behavior with respect to the attitude toward his or her job. Attention is called to three important requirements (1) Alertness (2) Doing what you are told (3) Using your initiative.

That New Job
1944 20 min sd $5 also loan AT&T
Shows the importance of the proper methods of introducing a new employee to his job and his fellow employees on his first day.

Fair Wage by Job Evaluation
1948 sd 15 min 94 fr col $100 (rent $5) Hayworth
Explains the why and basic principles of job evaluation to all

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Spinning rooms using Anderson Shields save time and money, and prevent disruption when unnecessary breaking, chipping, and splitting of bobbins and spools is avoided. In a year's time these items alone can amount to a surprising sum . . . Insist on Anderson and get the best protection metal shields afford . . . Watch your spinning room efficiency increase!

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Models available for all types of materials including pile fabrics.

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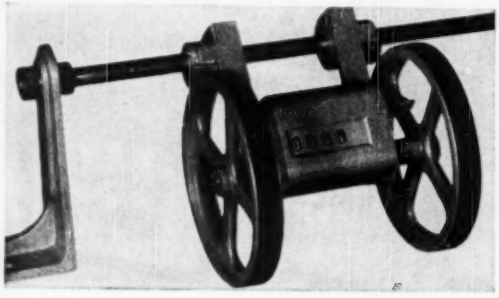

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Shows textile workers how they can keep from endangering themselves and fellow workers by building safety into the daily job. Covers lifting, wearing of proper clothing, good housekeeping, safe operation of machines and hand tools.

Employee Training Program Essential for Solvent Safety

While the management or operator of a plant may provide all the mechanical safeguards and medical controls thus far developed to protect workers from the potential hazards of solvents, in the final analysis the safety of a worker depends upon his own cooperation, based upon an understanding of the reasons for the controls and his part in making them effective. Education towards this objective should be considered as much a part of the man's training as the proper use of his tools and equipment.

When a new worker is introduced to his job, his supervisor should discuss with him the solvents used, why they are used, the nature of the hazards they present, the safeguards provided to protect the employees from these hazards, and what the worker himself must do to avoid danger.

Gas masks or supplied-air respirators should be tried on, and he should be given an opportunity to handle and operate the various types of fire extinguishers. He can also be given printed literature to read at his convenience or to take home, if he wishes.

At intervals, perhaps two or

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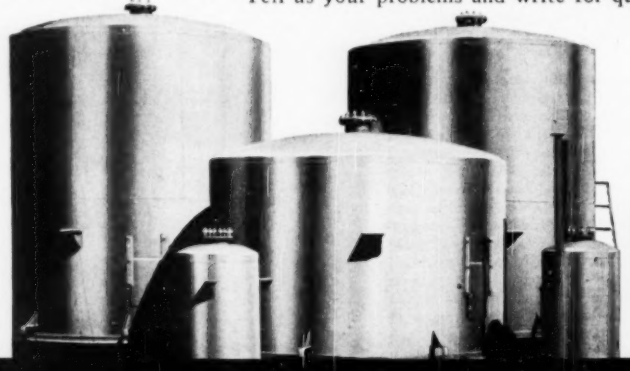

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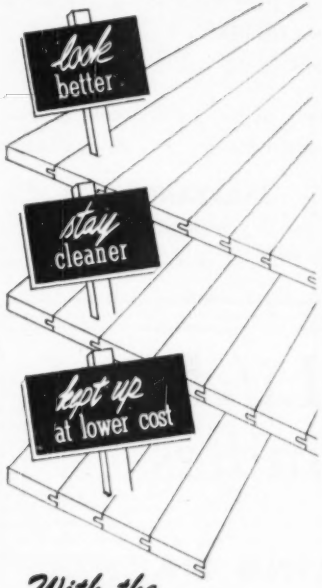

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three times a year, "refresher" meetings should be held at which all who have occasion to work with solvents at any time will be present. The plant safety engineer or whoever has the responsibility for plant safety can give a short talk on the subject of solvents and their proper use, followed by a question and answer period. If possible, a drill on the use of gas masks, fire extinguishers, and any other protective equipment provided for the men, should be held in conjunction with this meeting.

If an internal house organ is published, articles on the safe use of solvents and on gas masks, fire extinguishers, etc., can be included. These can be signed by the safety engineer, if there is one.

Posters on the bulletin board and placards in solvent storage and issue rooms may also be used as reminders, but these should be changed frequently.

If the number of employees who use solvents is large enough, it may be desirable to produce a set of slides for showing at meetings.

In the very large plant, it may be possible to prepare material such as leaflets, posters, etc., in terms of the specific processes and operations employing solvents in the particular plant. For smaller plants, much of the material already available will serve the purpose. Sources are the U. S. Department of Labor, state and municipal industrial hygiene services, the National Safety Council, the National Fire Protection Association, insurance companies and, often, the manufacturers of the solvents and of safety equipment. —Safety Research Institute

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On April 1, Covington Mills, Covington, Ga., celebrated 50 years of successful operations. R. O. Arnold, mill president, stated that good community relations stand foremost among achievements. Superintendent J. I. Alford recently played a major roll in building a new church for the community and is credited with stimulating participation in fellowship activities.

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First Listing of New Publications

4-1. Non-Sloughing Cams. A new data unit discussing filling wind and combination warp-wind cams which are made with an exclusive non-sloughing formula and enables the courses of the yarn to be laid more accurately on the bobbin and provides up to four-way pattern laying control. Precision Gear & Machine Co., Charlotte, N. C.

4-2. Central Station Air Conditioners. Bulletin No. 6 breaks this central station air conditioner down into five sections and describes and illustrates each one separately. Outstanding features of this unit are listed at the end of each section. Buensod-Stacy, Inc., 60 E. 42nd St., New York, N. Y.

4-3. Chemical Pump. Centrifugal pumping equipment used in chemical processing is described and illustrated in this booklet, No. W-350-B11. It gives a complete explanation of the Worthington Mechanical Seal specially designed to prevent leakage of corrosive liquids, and describes Worthite, the manufacturer's corrosion-resistant metal. Worthington Pump and Machinery Corp., Harrison, N. J.

4-4. Textile Process Controls. A new catalog describing Mason-Neilan automatic controls used by the textile industry. Controllers, indicators, recorders, control valves, and pressure regulating valves, to handle the process variables of pressure, temperature, liquid level and flow. Fully discussed with diagrams. Mason-Neilan Regulator Co., Boston 24, Mass.

4-5. Alloy Reference Chart. Comprehensive analysis of stainless, corrosion and heat-resistant alloy castings in a six-page folder. Considered most accurate and up-to-date chart available at this time. Properties of alloys at room temperature and in high temperatures are discussed. Applications in detail. The Cooper Alloy Foundry Co., Hillside 5, N. J.

4-6. Aluminum Paint. Folder for maintenance men describing six special Skyco Aluminum Paints each for a particular job. The Skybryte Co., Cleveland, Ohio.

4-7. Why Glycerine for Textiles. A booklet containing information regarding the use of glycerine. Combines basic technical data of concern to chemists, with facts about usage for non-technical buyers. Included are tables of specific gravity, viscosity, freezing point, etc., of various concentrations of aqueous glycerine solutions. Glycerine Producers Association, New York 17, N. Y.

4-8. Better Ways. To weigh, count, test, measure and control described in new catalogue of standard and special Toledo Industrial Scales being used in receiving, shipping, and production. Toledo Scale Co., Toledo, Ohio.

4-9. Humidification for Textiles. A new illustrated booklet tells what humidification will do to help increase quality and production. Spot, booster, or complete humidification discussed fully. Walton Laboratories, Irvington, N. J.

4-10. Chlorine Reference Book. Basic data covering safe storage, handling and use of chlorine, as well as its physical properties. This 44 page, file-size Technical Manual holds particular interest for chemical and metallurgical engineers, works managers, superintendents and other plant executives responsible for storing, handling, and using chlorine. Diamond Alkali Co., Cleveland 14, Ohio.

4-11. Vat Dyeing. Calco Technical Bulletin No. 810 concerns the exhaust behavior of vat dyes on cotton cloth. Accurate data on exhaust behavior of several vat dyes from the leuco bath, and results of laboratory continuous reduced dyeings are examined in relation to these exhaust data. American Cyanamid Co., Calco Chemical Div., Bound Brook, N. J.

4-12. Dilecto and Celoron. A new booklet concerning the development and application of laminated thermo-setting plastics, Dilecto and Celoron. Electrical insulating and mechanical properties, along with a discussion of their uses in many industries. Continental-Diamond Fibre Co., Newark 11, Del.

4-13. Torque-Arm Speed Reducer. Bulletin A-740 gives the complete story, augmented by photos, of uses and advantages of Torque-Arm speed reducers. Tables for determining the size of V-belts and sheaves required for the drives. Dodge Manufacturing Co., Pittsburgh 30, Pa.

4-15. V-Belt Drives. Four-page inventory survey check list available to help decide which belts are satisfactory, which will shortly require replacement, and which need immediate replacement. Survey designed to cover the drive problems of most companies. Allis-Chalmers Mfg. Co., Milwaukee, Wis.

4-16. Textile Trucks. Catalog describing several types of trucks for handling section beams, warp beams, and cloth rolls, with specifications and prices. J. W. Lewis & Co., Spartanburg, S. C.

4-17. Cellophane. Brochure gives procedure for package wrapping, and care in their handling discussed. Many uses for cellophane. Sylvania Div., American Viscose Corp., New York, N. Y.

4-18. Centrifugal Pumps. A booklet describing the new multi-stage centrifugal pumps for boiler feed and high pressure service. Construction described and important operating features shown in cutaway diagram along with overall dimensions. American-Marsh Pumps, Inc., Battle Creek, Mich.

4-19. Nitrogen Chemicals Digest. Volume four in series is entitled "The Chemistry of Guanidine," and covers chemical and physical properties of this compound; the synthesis of Guanidine methods of analysis, toxicity, and potential applications in a number of fields. Industrial Chemicals Division, American Cyanamid Co., New York, N. Y.

4-20. Gas Fired Burners. New booklet describing the use of gas fired burners in textile mills for faster drying. Gives uses, construction, drying capacity, and gas consumption. Red-Ray Mfg. Co., Inc., New York, N. Y.

TESTED IS TRUSTED

Textile Testing

The opening lecture was given by Mr. H. M. Taylor, M.A. (Cantab.), A.Inst.P. (British Cotton Industry Research Association) and entitled "Textile Testing." For the proper understanding of textile testing and also of the principles governing the drawing up of specifications for the final product, some understanding of statistical method is essential, said Mr. Taylor.

Among the aims of textile testing are: (1) The routine examination of raw material and the control of the processes of spinning, manufacture and finishing. (2) The inspection of goods on receipt to ensure that an agreed standard is being maintained and to reduce the possibility of substandard goods being put into service. (3) The investigation of faults in textile products to determine the origin of defects. (4) The assessment of utility and serviceability in new products.

Under (2) the principles that underlie acceptance and the drawing up of specifications were outlined and tests that characterise features of general and special importance in yarns and fabrics were discussed. Under (3) methods that can be applied to the examination of faults of the more common types in yarns and fabrics were described. Mr. Taylor concluded by saying that the assessment of utility and serviceability in textiles is one of the most difficult of the tasks of the textile technologist. Progress is being made slowly, mainly on a few specialised fronts.

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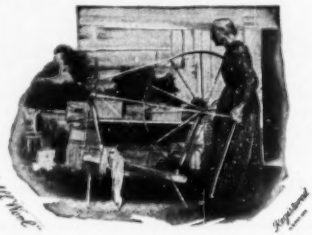

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John.

Those analyses which the Penick & Ford Textile Laboratory in Atlanta made for us certainly helped solve our warp sizing problems.

Jim

GENERAL ECONOMIC, MANAGEMENT . . .

4. HOW FACTORING CAN INCREASE PROFITS—Describes how factoring works out in keeping clients' capital liquid and attitude of factor toward checking credits, including typical balance sheet.—COMMERCIAL FACTORS CORP., New York City.

5. FACTORING AND FINANCING — Illustrated booklet on how factoring works, cost and credit information.—TEXTILE BANKING COMPANY, New York, N. Y.

7. RAYON TELLS ITS STORY TO THE PUBLIC—Folder containing reprints of advertisements explaining some of the many roles in which rayon is serving the American public.—AMERICAN VISCOSE CORPORATION, New York 1, N. Y.

8. "WASTE REDUCTION AND CONTROL"—19-page illustrated booklet giving primary waste factors; how to calculate cost of departmental waste; actual waste figures from mills; outline survey of waste practices.—SOUTHEASTERN ENGINEERING CO., West Point, Ga.

10. "LABOR AND MANAGEMENT BENEFIT BY INDUSTRIAL ENGINEERING PRINCIPLES"—8-page illustrated folder outlining principles of industrial engineering as they apply to textiles.—AMERICAN ASSOCIATED CONSULTANTS, INC., New York, N. Y.

11. FLETCHER JUNIOR "SUPER-SELF-BALANCING" EXTRACTOR—Illustrated folder describing this new extractor with the highly efficient self-balancing arrangement which uses steel springs instead of rubber buffers.—FLETCHER WORKS, INC., Philadelphia, Pa.

12. CONDENSED LISTINGS—8 page pocket sized booklet listing by plant flow the machinery and mill supplies available. Designed to help purchaser in grouping his orders to greatest advantage.—ATKINSON, HAMMICK & CO., Boston, Mass.

13. BROCHURE describing financial service to speed turnover of working capital; credit service for sales expansion, and credit loss elimination.—WILLIAM BLIN & CO., INC., New York, N. Y.

14. TEXTILE WEIGHT CONTROL—Forms 2000 and 2010, showing how Toledo Printweight weight records cut costs by eliminating human errors at the scales. Special purpose scales for the textile industry fully discussed.—TOLEDO SCALE CO., Toledo, Ohio.

PLANT AND PLANT MAINTENANCE . . .

102. "TANK TALK"—Sixteen page booklet of illustrations showing various types of elevated steel tanks constructed and erected by manufacturers as well as stand pipes, reservoirs, storage and high pressure vessels, cylinders, along with helpful technical data. Also a list of what a few of the cotton mills, etc., said.—R. D. COLE MANUFACTURING COMPANY, Newnan, Ga.

107. FINNELL SCRUBBERS — Illustrated leaflets describing and giving specifications for the new Finnell floor scrubbing machines.—FINNELL SYSTEM, INC., Elkhart, Ind.

108. MAPLE FLOORING — Booklet describing finishing of Northern Hard Maple Flooring—list of M.F.M.A.-approved heavy-duty floor finishes.—MAPLE FLOORING MANUFACTURERS ASSOCIATION, Oshkosh, Wis.

110. BASIC TOOLS FOR MAINTENANCE—Two-page brochure covering the uses of the Kent Wet Scrubber and Kent Electric Floor Washing; Dry Suction Machine; D-20 Dry Scrubber and illustrating them.—THE KENT COMPANY, INC., 274 Canal St., Rome, N. Y.

112. TEXTILE TRUCKS—Brochure describing Vulcanized Fibre textile trucks engineered by materials handling experts. Types fully discussed. — J. C. PADDOCK CO., Spartanburg, S. C.

115. ATOMIZER HUMIDIFIER — Recent issue of "Parks' Parables" on Turbomatic self-cleaning humidifiers, and automatic regulation. — PARKS-CRAMER CO., Fitchburg, Mass., and Charlotte, N. C.

118. "PARKS PARABLES" — Recent issue on Parks Turbo Traveling Cleaners for spinning, winding, and warping. Type C.T.C. "Up Draft" cleaners keeps overhead and ceilings free from fly and lint.—PARKS-CRAMER CO., Fitchburg, Mass.

119. NOPPING EQUIPMENT—Complete catalog and circulars containing information on the many sizes and styles that can be had.—S. C. LAWLOR CO., Chicago, Ill.

135. SAFETY COLOR CODE—How six standard colors can be used to reduce hazards, cut down accidents.—E. I. DU PONT DE NEMOURS & CO., INC., Finishes Division, C44, Wilmington, Dela.

136. MAGNESIUM IN THE TEXTILE INDUSTRY—Illustrated booklet on properties of magnesium for spinning, twisting, winding, knitting machines, looms, beams, spools, bobbins.—ALUMINUM CO. OF AMERICA, Pittsburgh, Pa.

150. RINCO HUMIDIFIERS AND COOLING SYSTEMS—Bulletin describes new atomizers with construction lowering air consumption in humidifier systems, evaporative cooling systems. — ALDRICH MACHINE WORKS, Greenwood, S. C.

151. INDUSTRIAL BRUSHES—Illustrated Booklet of industrial brushes featuring textile usage on shears, printing machines—also flock, raising and cylinder brushes.—M. W. JENKINS' SONS, INC., Cedar Grove, N. J.

152. AIR CONDITIONING FOR THE TEXTILE INDUSTRY—40-page illustrated book covering air conditioning from humidity control to complete refrigerated conditioning with installations, charts, covering ABC's of cooling textile mills.—CARRIER CORP., Syracuse, N. Y.

162. MODERN METHODS OF TEXTILE FLOOR MAINTENANCE—Illustrated treatise on the history of floor cleaning in textile plants and a detailed description of new methods for reducing floor cleaning costs, as well as preserving textile mill floors.—G. H. TENNANT COMPANY, Minneapolis 11, Minn.

163. LAWLOR FLOOR MACHINES — Illustrated pamphlet containing specifications and describing All-Purpose Floor Machines.—THE SELIG COMPANY, Atlanta, Ga.

164. ECONOMY IN DRY SCRUBBING—Booklet describes Floroseal—Floroseal "dry" maintenance system—reduces consumption of seal and steel wool.—THE SELIG CO., Atlanta, Ga.

170. WHY IT PAYS TO ANCHOR YOUR TEXTILE MACHINES WITH UNISORB — Illustrated booklet discussing control of vibration and noise and how UNISORB reduces maintenance costs.—THE FELTERS CO., Boston, Mass.

172. VENTILATING FANS — Bulletin 2339 gives facts on Buffalo Ventilating Fans. — BUFFALO FORGE CO., Buffalo, N. Y.

179. TOLEDO SCALES — A condensed catalogue which illustrates and describes all of the principal types of weight control equipment used in the textile industry. — TOLEDO SCALE COMPANY, Toledo, Ohio.

180. WHERE ARE YOUR FLOORS?—This piece of literature covers the various sizes of Kent floor machines which are available for polishing, waxing, buffing, scrubbing, steel wooling and light sanding.—THE KENT COMPANY, INC., 274 Canal Street, Rome, N. Y.

POWER TRANSMISSION, MOTORS, BELTING, LUBRICATION . . .

204. G-E MOTORS—Bulletin GEA-5335 contains information on the new line of life-time lubricated, ball-bearing FHP motors.—GENERAL ELECTRIC COMPANY, Schenectady 5, N. Y.

205. AUTOMATIC PRODUCTION CONTROL—Bulletin GN-467 on automatic speed control of many machines and processes through Variable Speed Equipment with mechanical and hydraulic automatic controls. Contains many illustrations, drawings and complete description of many applications.—REEVES PULLEY COMPANY, Columbus, Ind.

206. LOOM MOTOR BULLETIN—The new design of this ball bearing motor is claimed to represent an advance in the design of loom motors fully discussed.—THE LOUIS ALLIS CO., Milwaukee, Wisconsin.

207. TRICO OILER INSTALLATION—Twelve profusely illustrated pages showing Trico Oilers "On the Job". Provides many helpful tips on correct oiler application.—TRICO FUSE MFG. CO., Milwaukee 12, Wis.

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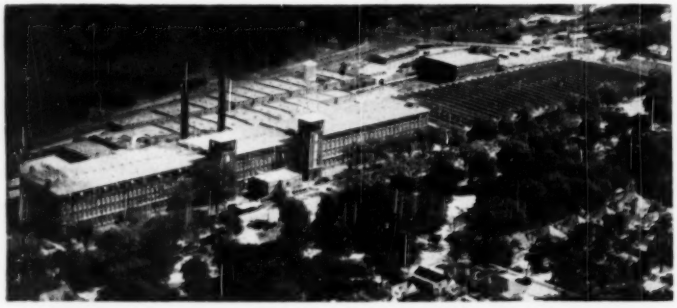

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Dixie Mercerizing Co.
Goodyear Tire and Rubber Co.
Marshall Field and Company
Mt. Vernon-Wood Berry Mills, Inc.
Muscogee Manufacturing Co.
Peerless Woolen Mills
Pepperell Mfg. Co.
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Swift Spinning Mills
The B. F. Goodrich Co.
The Springs Cotton Mills
West Point Manufacturing Co.
Thomaston Mills
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AIR CONDITIONING — MODERNIZATION STUDIES — POWER PLANTS — COMMUNITY DEVELOPMENTS — APPRAISALS — MACHINERY LAYOUTS — FILTRATION PLANTS

211. JOHNSON BRONZE CATALOGUE NO. 480—Shows over 350 sizes of cast bronze bushings. 500 sizes of UNIVERSAL Bronze Bars and over 300 Electric Motor Bearings.—JOHNSON BRONZE COMPANY, New Castle, Penna.

212. GATES TEXTILE ACCESSORIES—Showing the increased efficiency and economy to be secured through the use of Gates cone belts, creper belts, card bands and loom binder cushions.—THE GATES RUBBER COMPANY, Denver, Colo.

213. ELECTRICAL SPECIALTIES—Catalog No. 8863, 64 pages, lists manual and magnetic motor control and accessories, safety switches, Multi-Breakers and electrical specialties.—CUTLER-HAMMER, INC., 301 N. 12th St., Milwaukee 1, Wis.

215. INCREASE PRODUCTION, CUT MAINTENANCE—New four-page booklet describes others, fuses, fuse pullers, "Kliplok" clamps for fuse clips and test clamps. TRICO FUSE MFG. CO., Milwaukee 12, Wis.

216. LEATHER BOOKLET NO. 202—Attractive book illustrating and describing BONDARON Special Tanned Leather as used in various forms such as Cheez Straps, Solid Round Leather Belting, Flat Belting.—CHAS. BOND CO., Philadelphia, Pa.

219. ROLLER CHAINS & SPROCKETS—Data Book No. 1957-A describes the Link-Belt Silverlink precision steel roller chain. Can be used on short centers at high ratios; can be applied to small fractional horsepower machines or to units involving more than a thousand horsepower.—LINK-BELT COMPANY, 307 N. Michigan Ave., Chicago, Ill.

235. JOHNSON LEDALOYL BEARING BRONZE—Illustrated booklet telling the complete story of Johnson Ledaloyl Bronze, the newest development in self-lubricated bronze for textile bearings and bushings.—JOHNSON BRONZE COMPANY, New Castle, Pennsylvania.

236. LEATHER BELTING CALCULATOR—Handy and attractive calculator for determining belt, speeds, horsepower per inch of belt widths, etc., will be sent free on request.—J. E. RHOADS & SONS, Philadelphia, Pa.

244. TEXACO SPINDURA OILS—Folder on lubrication for all types of spindles, based on actual tests.—TEXAS CO., New York City.

263. NEEDLE ROLLER BEARING—Catalog Engineering and Application Data Edition 32 contains full data on selection of proper Needle Roller Bearings and outlines uses of such in various commodities including textile uses, types, installations, lubrication, etc.—TORRINGTON COMPANY, Torrington, Conn.

264. NEW DEPARTURE SHOP MANUAL—Illustrated catalog showing ball bearing mounting and maintenance practice. Covers storage, cleaning lubrication, types of bearings.—NEW DEPARTURE DIV., GENERAL MOTORS CORP., Bristol, Conn.

265. INTERCHANGEABLE BALL BEARING FOR REPLACEMENT—Charts showing numbers used by manufacturers to identify bearing characteristics, also information on specifications.—NEW DEPARTURE DIV., GENERAL MOTORS CORP., Bristol, Conn.

269. LUBRICATION AND MAINTENANCE OF BALL AND ROLLER BEARINGS—Illustrated bulletin describing efficiencies and economies of NON-FLUID OIL for all types ball and roller bearings.—NEW YORK AND NEW JERSEY LUBRICANT CO., New York, N. Y.

271. CARDING, SPINNING AND WEAVING LUBRICATION—Informative bulletin describing advantages of NON-FLUID OIL over ordinary lubricants for the lubrication of carding, spinning and weaving machinery.—NEW YORK AND NEW JERSEY LUBRICANT CO., New York, N. Y.

275. HYATT ROLLER BEARINGS—A 16-page bulletin giving details of the application of roller bearings to all types of textile machinery.—HYATT BEARINGS DIV., General Motors Corp. Harrison, New Jersey.

276. SPEED CONTROL—Bulletin 20H6051G describes Texrope variable speed drives. — ALLIS-CHALMERS MFG. CO., Milwaukee 2, Wis.

INSTRUMENTS, STEAM SPECIALTIES . . .

300. TIME SAVED WITH STEAM CLEANING—Illustrated folder enumerates the important time, cost and work economies obtainable with steam-detergent cleaning. Lists specific job applications of this method in textile mills.—OAKITE PRODUCTS, INC., New York 6, N. Y.

301. JOHNSON ROTARY PRESSURE JOINTS—Bulletin describing the rotary pressure joint which requires no packing, no lubrication and no adjustment, giving installation and maintenance instruction, types, sizes, dimensions and prices. — THE JOHNSON CORP., Three Rivers, Mich.

303. PROCESS CONTROL EQUIPMENT—New textile catalog contains brief descriptions of standard and special process control equipment engineered for textile industry. Includes schematic diagrams.—MASON NEILAN REGULATOR CO., Boston, Mass.

307. THERMOMETER AND PRESSURE GAUGES—Catalog 6705-R and 6706 give data on both circular and rectangular case pressure type thermometers for indicating, recording and controlling processing operations in textile industry.—BROWN INSTRUMENT COMPANY, Philadelphia, Pennsylvania.

309. TENSION MEASUREMENT AND CONTROL—Bulletins describe Tensiometers for winding, warping, throwing, quilling—highest sensitivity (nylon, lastex), largest capacity (tire cords, spooling), trigger insertion, steady readings, permanent accuracy, all fully discussed.—SAXL INSTRUMENTS, Harvard, Mass.

311. PIPING POINTERS—Industrial maintenance book covering installation and handling of piping, valves, fittings. Well illustrated, practical tips. — CRANE CO., Chicago, Ill.

314. MOISTURE CONTENT CONTROL—Bulletin F-1705-1 giving details of features and benefits of moisture equipment control for slashers and textile applications. — BARBER-COLMAN CO., Rockford, Ill.

315. CONTROL INSTRUMENTS FOR TEXTILE PROCESSES—32-page illustrated booklet describing controls for such processes as sizing, dyeing, bleaching, kier boiling, drying, air-conditioning, etc. —BROWN INSTRUMENT CO., Philadelphia, Penna.

316. HYDRAULIC POWER UNITS—Literature describing hydraulic unit, motor, pump, reservoir, valving a small compact unit for operating of hydraulic calenders, presses, hydraulic controls, etc.—B. F. PERKINS & SON, INC., Holyoke, Mass.

319. GUIDE TO CORRECT INSTRUMENT SELECTION—This completely revised edition gives a comprehensive bird's-eye view of the companies' entire instrument line. Bulletin 98170. — TAYLOR INSTRUMENT COMPANIES, Rochester 1, N. Y.

321. RED-RAY BURNERS—Bulletin describing use of Red-Ray Burners in preheating and partial drying to increase capacity of frame.—RED-RAY MFG. CO., New York, N. Y.

324. STROBOTAC—Informative reprint, "Strobotac Boosts Efficiency in Woolen and Synthetic Mills."—GENERAL RADIO CO., Cambridge 39, Mass.

CARDING, SPINNING, WINDING . . .

400. THE TRAVELER—Booklet on ring travelers published quarterly with a technical article on spinning and twisting of interest to mill men.—VICTOR RING TRAVELER CO., Providence, R. I.

401. LUMMUS DUSTLESS, STEEL BLENDING FEEDERS—Bulletin describing automatically closing, positively locking door on feeders to prevent overloading, choking. — ALDRICH MACHINE WORKS, Greenwood, S. C.

402. AUTOMATIC CLEANING AND OVERHEAD HANDLING FOR TEXTILE MILLS—24-page bulletin describing the American Monorail Automatic Cleaner for preventing accumulation of lint on spinning twisting, winding and warping machines. Also for cleaning monitors and card room ceilings.—THE AMERICAN MONORAIL CO., Cleveland, Ohio.

404. LAPLESS ENDLESS SPINNER—Bulletin and full information will be supplied on lapless endless spinner and coning belting.—TON-TEX CORPORATION, 16 West 61st St., New York, N. Y.

408. CARD GRINDING INFORMATION—Outlines care of grinders, instructions on speed to run grinders, amount of oil to add to machine and other pertinent information.—B. S. ROY & SON CO., Worcester, Mass., and Charlotte, N. C.

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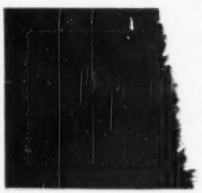
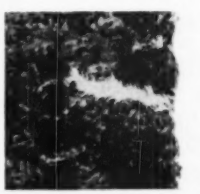


Fabric sample treated with a Cunilate, after 14-day burial in soil bed, showing no degradation.



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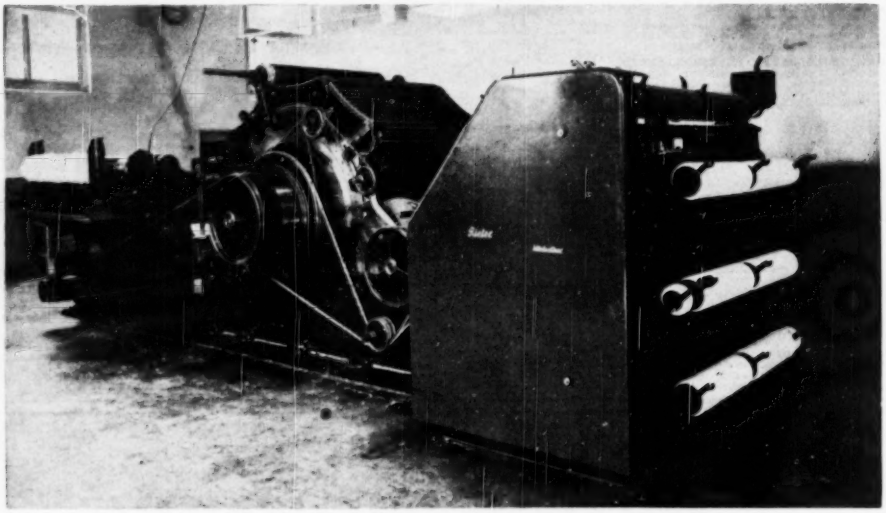

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409. ROTO CONER—Bulletin describing Universal rotary traverse winder, known as the Roto Coner, producing open wound cones or knitting and warping; parallel tubes for package dyeing, twisting and sale yarn.—UNIVERSAL WINDING CO., Providence, Rhode Island.

412. SERVICE FOLDER—Folder covers textile metal products including spinning and twisting cylinders, card screens, etc.—JENKINS METAL SHOPS, INC., Gastonia, N. C.

413. SONOCO PRODUCTS—A 54-page illustrated booklet giving description, specifications and charts of the many Sonoco products, including bobbins, cones, tubes, cork ots, roving cans, spooling, rolls, etc.—SONOCO PRODUCTS CO., Hartsville, S. C.

414. WORSTED SPINNING—Bulletin explaining and illustrating Saco-Lowell's new system for worsted spinning, from top to yarn in five economical and efficient stages.—SACO-LOWELL SHOPS, 60 Batterymarch St., Boston 10, Mass.

416. THE BRIEF SAGA OF THE RING TRAVELER—An interesting history relative to the ring traveler, which is in reality the basis of the spinning frame. John Thorpe's invention of the ring traveler, the development of the spindle, and the invention of Rabeih's Boister type spindle are covered. — NATIONAL RING TRAVELER CO., Pawtucket, R. I.

417. SAGA OF THE RING TRAVELER—Part II of this interesting history is now available.—NATIONAL RING TRAVELER CO., Pawtucket, R. I.

419. TEXTILE APRONS—Illustrated folder showing the steps in manufacture of genuine leather aprons for all types of long draft spinning and card room machinery. — TEXTILE APRON COMPANY, East Point, Ga.

420. AUTOMATIC FILLING WINDING — Eight page, two color booklet describing the operation and mechanism of the Hacoba winder. — ATKINSON, HASKRICK & CO., 211 Congress St., Boston, Mass.

421. AUTOMATIC WINDERS—Folder describing latest winding equipment with full automatic operation. Only one automatic head for one to 160 spindles.—ABBOTT MACHINE CO., Wilton, N. H.

422. MODERN TEXTILE ROLL COVERING—Illustrated booklet on roll covering problems with chart on correct usages. Also data on Acotex long draft aprons.—ARMSTRONG CORK CO., Industrial Division, TEXTILE PRODUCTS SEC., Lancaster, Pa.

423. TEXTILE SHEET METAL PRODUCTS—Folder on cylinders, card screens, licker-in screens, repair work.—JENKINS METAL SHOPS, INC., Gastonia, North Carolina.

428. PNEUMATIC ROLL PICKER—Attractive bulletin descriptive of the "Amoskeag roll picker that removes fly and lint from the top rolls and other drafting elements in spinning and roving frames.—M-B PRODUCTS, Detroit, Mich.

430. "SLIXONICE" BEARINGS—Folder is available on this new frictionless bearing "that never needs lubrication."—DIXON LUBRICATING SADDLE COMPANY, Bristol, R. I.

432. PRECISION TEXTILE WINDING—Bulletin on Kidde Tension and Density Control for winding rubber cone.—WALTER KIDDE & CO., INC., Belleville, N. Y.

435. MAINTENANCE INFORMATION FOR YOUR SCOTT TESTER—Booklet containing maintenance data for calibration of Scott Testers, clamps for testers, gear-box lubrication, and recording.—SCOTT TESTERS, INC., Providence, R. I.

437. SPINDLE TAPE LACING EQUIPMENT—Circular No. 54 illustrating and describing the Clipper method of joining spindle tapes.—CLIPPER BELT LACER CO., Grand Rapids 2, Mich.

440. SADDLES—Leaflet showing a few of the over 400 different types of saddles for both conventional and long draft spinning and roving frames.—DIXON LUBRICATING SADDLE CO., Bristol, Rhode Island.

441. SKF BALL BEARING TENSION PULLEY FOR SPINNING FRAMES — Attractive illustrated folder outlining the value of anti-friction bearing Tension Pullers for all types of spinning frames.—SKF INDUSTRIES, INC., Philadelphia, Pa.

443. COMPARATIVE YARN TABLE—Chart giving woolen number (cut and run system), also cotton worsted and metric system; also, Comparative Rayon Denier Yarn Table.—VICTOR RING TRAVELER CO., Providence, R. I.

445. ROLLER BEARING SPINDLES—Illustrated booklet showing various types of Marquette Roller Bearing Spindles. The unique self-floating footstep bearing is pictured in cut-away views, and its advantages are described.—THE MARQUETTE METAL PRODUCTS CO., Cleveland, Ohio.

447. CONE WINDER—Form A95 describes the Foster Model 102 winder which produces the Foster knitting cone for spun yarns, warping cones and tubes for dyeing and twister supply.—FOSTER MACHINE COMPANY, Westfield, Mass.

451. CYLINDER BEARING—New bulletin available describing and illustrating the cylinder bearing for spinning frames and twisters. This bearing fits all popular makes and is self-aligning.—SOUTHERN STATES EQUIPMENT CORP., Hampton, Georgia.

454. CARD AND PICKER BEARINGS — Four-page, two-color folder which describes this manufacturer's ball and roller bearings for cards and pickers.—SOUTHERN STATES EQUIPMENT CORP., Hampton, Ga.

WEAVING, SLASHING . . .

502. TEXTILE COUNTERS—Catalog T-48 describing pick counters for looms, hank counters for spinning, yardage counters for cloth room, etc. — VEEDER-ROOT, INC., Hartford, Conn.

507. SLASHER PRODUCTION—GN-433, new bulletin on slasher production, describing how quality yarn can be improved through the use of this company's variable speed equipment to automatically control and regulate the speed of the main drive, beam drive and stretch control of the slasher.—REEVES PULLEY COMPANY, Columbus, Ind.

508. LOOM PRODUCTION CHARTS—Convenient celluloid card showing yards per loom per week of 40 hours at various loom speeds.—RALPH E. LOPER CO., Greenville, S. C.

510. THE ROMANCE OF PRAIRIE GOLD—Attractive illustrated book which tells the story of corn and the uses of corn products in industry.—CORN PRODUCTS SALES CO., New York, N. Y.

513. SEYCO PENETRANTS FOR YARN CONDITIONING—Folder describing the scientifically formulated Seyco sizing. — SEYDEL-WOOLLEY & CO., Atlanta, Ga.

515. TEXTILE COUNTERS—Catalog No. 50 illustrating and describing complete line of Productimeter Loom Pick Counters; Hank Counters; Yardage, Electric and Predetermined Counters; Tachometers, etc. — DURANT MANUFACTURING CO., Milwaukee 1, Wisconsin.

516. WEAVE ROOM ACCESSORIES—Weave-room accessories catalog and literature on new plastic, bronze bearing sleeve, which solves a troublesome weave room problem.—EMMONS LOOM HARNESS COMPANY, Lawrence, Mass.

517. LOADING SYSTEM—Bulletin 417, on pneumatic loading system for Saco-Lowell slasher size box squeeze rolls, contains installation photo, features, specifications, and prices.—THE FOXBORO COMPANY, Foxboro, Mass.

518. NIAGARA TWIST-SETTER—Folder describing the revolutionary Niagara Twist-Setter which has no moving parts. This yarn is sprayed from all sides to afford maximum economy.—SEYDEL-WOOLLEY & CO., Atlanta, Ga.

519. WOODEN BEAM HEADS, WARPER BEAMS, AND WARPING MACHINERY FOR ALL FIBERS—63-page illustrated booklet descriptive of and giving specifications for the Allen line of beam heads, warper beams, warping machinery, stop motions and cloth rolls.—ALLEN COMPANY, New Bedford, Mass.

520. PNEUMATIC LOADING SYSTEM—Bulletin 419 contains installation photo, features, specifications and prices for pneumatic loading system for Charles H. Johnson Machine Works slasher squeeze rolls.—THE FOXBORO COMPANY, Foxboro, Mass.

521. STEEL WARP BEAMS—20 page catalog No. 45 illustrating Standard and Special Purpose Warp Beams for the weaving industry, both broadloom and narrow fabrics. Also Textile Machinery Specialties.—MILTON MACHINE WORKS, INC., Milton, Pa.

523. OVERHEAD MOUNTS FOR BIGGER LOOM BEAMS—Folder illustrating and describing how bigger beams can be adapted under all mill conditions, includes handy Multiplier Table showing increased yarn capacity possible with bigger beams.—WEST POINT FOUNDRY & MACHINE COMPANY, West Point, Ga.

524. JOHNSON WARP SIZES—12 page fully illustrated booklet, describing the 7 cylinder sizer with stretch indicator and finger-tip control of stretch. A point-by-point analysis.—CHARLES B. JOHNSON MACHINE WORKS, Paterson, N. J.

525. GATES LOOM ACCESSORIES — Catalogs MRG-418, MRG-421, MRG-422 describe the advantages of lug straps, harness straps and drop box pickers made from a remarkable new material called TexHide. Catalog MRG-419 describes the advantages of a new "Tractive-Rib" take-up roll covering.—GATES RUBBER CO., Denver 17, Colorado.

528. PARTS CATALOGS FOR WPF&M SLASHERS, SIZE KETTLES AND PUMPS—This 42-page illustrated catalog of parts, contains exploded views and part numbers for quick identification.—WEST POINT FOUNDRY & MACHINE COMPANY, West Point, Ga.

529. STRAPPING — Looms and harness strapping complete line. Full information supplied on request. —TON-TEX CORPORATION, 16 West 61st St., New York 23, N. Y.

530. ROTARY UNIONS—New catalog shows how to cut costs, get better sealing on can dryers, slashers, calenders, etc. Catalog No. 500 entitled "Where Good Connections Count."—PERFECTING SERVICE COMPANY, Atlanta Ave., Charlotte, N. C.

531. EVENNESS TESTER—Folder explaining how this Tester takes the guess out of quality control and each processing step from carding through spinning. —USTER CORPORATION, Charlotte, N. C.

DYEING, FINISHING, CLOTH ROOM . . .

600. BIOLOGICAL ASPECTS OF INSECT DAMAGE TO WOOL—Booklet giving complete picture of insect damage to wool from biological standpoint.—GEIGY CO., INC., New York 8, N. Y.

602. ALUMINUM IN THE CHEMICAL INDUSTRY—Published by Aluminum Company of America. Seventy-eight pages. Text and illustrations covering adaptability of aluminum and aluminum alloys to chemical industry applications and characteristics governing recommended uses. — ALUMINUM COMPANY OF AMERICA, Pittsburgh, Pa.

603. DEPUMA—An odorless, viscous, non-evaporating emulsion which is very efficient as an anti-foam, useful to printers and all phases of dyeing.—AMERICAN ANILINE PRODUCTS, INC., 50 Union Square, New York, N. Y.

605. CONTINUOUS AUTOMATIC EXTRACTING MACHINE — Folder describing the most efficient method of extracting excess liquid from fibrous materials.—C. G. SARGENT'S SONS CORP., Graniteville, Mass.

610. PROCTOR DRYING MACHINERY FOR THE TEXTILE INDUSTRY—Illustrated, descriptive catalog on all types of dryers for raw stock, warps, package dyed and automatic skein yarn. Also includes Preboarding and Automatic Boarding Machines for hosiery.—PROCTOR & SCHWARTZ, INC., Philadelphia, Pa.

611. BRUSHING AND SHEARING MACHINES—Illustrated literature on the new Hermas Brushing Machine for use light shearing to heavy ducks; also on Hermas AV Shears.—HERMAS MACHINE CO., Hawthorne, N. J.

613. RADIANT HEAT IN TEXTILE INDUSTRY —New illustrated book on uses of radiant heat, data on fuel consumption, etc. — RED-RAY MFG. CO., New York, N. Y.

614. STRIPS IN ROLLS—Form No. CF-642 illustrated folder showing over 25 slitters and roll winders for textile use.—CAMERON MACHINE CO., Brooklyn, New York.

616. ENGINEERING PROPERTIES OF MONEL—Technical Bulletin T-5, giving detailed information on strength and ductility, working properties, resistance to various types of corrosion and other data on Monel Metal. — INTERNATIONAL NICKEL CO., INC., New York, N. Y.

617. AUTOMATIC CONTROL SYSTEM FOR CONTINUOUS BLEACHING—Illustrated folder describes the new method of controlling the temperature, pressure, and liquid level in the continuous bleach operation.—TAYLOR INSTRUMENT COMPANIES, Rochester 1, N. Y.

622. FILT-R-STIL—Attractive illustrated booklet describing the FILT-R-STIL method of chemically purifying water.—AMERICAN CYANAMID & CHEMICAL CORP., New York 20, N. Y.

625. BALL BEARING ROLLER TYPE SCRAY—Circular No. 904 describing the scray which is for use in handling heavy and large size rolls of cloth. This is used either in finishing plants or in the cloth room of cotton mills.—BIRCH BROS., INC., Somerville, Mass.

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626. GUIDER AND GUIDING EQUIPMENT—This booklet entitled "Mount Hope Precision Guider and Guiding Equipment" describes this latest development in guiding equipment. The new guider, it is claimed, makes possible automatically controlling the lateral movement of cloth within closer limits than ever before possible.—MOUNT HOPE MACHINERY CO., Taunton, Mass.

627. SINGLE APRON STOCK DRYER—Folder presenting the latest idea in automatic drying which every mill having drying problems can profitably use to meet modern manufacturing conditions.—C. G. SARGENT'S SONS CORP., Graniteville, Mass.

628. STAINLESS STEEL WARE—New data sheets available on this line of stainless steel pails, dippers, buckets and Blickman-Built fully enclosed stainless steel Dye Box.—S. BLICKMAN, INC., Weehawken, N. J.

630. VAT DYEING OF WOOL—Write for Calco Technical Bulletin No. 797 outlining fundamental dyeing procedures, and explaining new advances in the technology of wool dyeing and finishing.—CALCO CHEMICAL DIVISION, AMERICAN CYANAMID CO., Bound Brook, N. J.

632. LUG STRAP WASHERS—Series 1-C illustrated bulletin detailing right and wrong application and use of washers.—H. JACOBS NORTHERN DIVISION, Danielson, Conn.

635. CUTTING MACHINERY FOR THE TEXTILE INDUSTRY—Catalogue describing hand to fully automatic machines which will measure to length, cut and stack many varied materials.—SPADONE MACHINE COMPANY, Inc., 10 East 43rd St., New York, N. Y.

DYESTUFFS, CHEMICALS, SOAPS . . .

709. THEORETICAL AND APPLIED SILK-SOAKING—Attractive 23-page booklet outlining methods of silk-soaking and outlining investigation on the soaking, back-winding and degumming of silk.—HART PRODUCTS CORP., New York City.

710. HERCULES PINE OILS—Leaflet briefly describing advantages of using this manufacturer's oil in wet-processing of textiles.—HERCULES POWDER COMPANY, Wilmington, Del.

712. VANDERBILT MATERIALS—Available is a 6-page booklet describing non-toxic fungicides, and their use in textile operations.—R. T. VANDERBILT CO., INC., New York, N. Y.

713. LIOVATINE ED—Vat dyeing assistant increasing penetration and level dyeings with maximum yield of color.—SANDOZ CHEMICAL WORKS, New York City.

715. AQUAROL AND ARKANSAS PRODUCTS—Bulletins on Aquarol water repellent finish with method of preparing bath; also on other Arkansas products for cotton, wool, silk and rayon, hosiery processing.—ARKANSAS CO., INC., Newark, N. J.

717. FINISH KB—Finishing compound designed as binder in combination with filling and stiffening compounds. Avoids dusting, insures draping qualities.— SANDOZ CHEMICAL WORKS, New York.

720. SYNTHETIC FIBERS — Attractive folder briefly describing the company's products used in the manufacture of synthetic fibers.— HERCULES POWDER COMPANY, Wilmington, Del.

738. LEVELENE—Booklet describing use of Levelene for leveling vat and direct colors. Also for stripping down vat colors.—AMERICAN ANILINE PRODUCTS, INC., New York, N. Y.

745. RAPIDASE FOR DESIZING—Bulletin explaining in detail the properties and characteristics of Rapidase.—WALLERSTEIN CO., INC., 180 Madison Avenue, New York 16, N. Y.

749. LUPOMIN G—Pamphlet outlines the application of the quaternary ammonium compound recommended for treating natural and synthetic fibres to give soft hand, lubrication, odorless finish, brighter shades, etc.—JACQUES WOLF & CO., Passaic, N. J.

753. LUPOMIN—Leaflet outlines the advantages of the cation active softener which is suitable for use on cotton, linen, silk, wool, synthetic fibres and mixed fabrics. A small percentage of lupomin gives a supple, smooth hand.—JACQUES WOLF & CO., Passaic, New Jersey.

756. TEXTILE SPECIALTIES—Listing and describing a wide and complete range of specialties manufactured and sold by American Cyanamid Company formulated to the latest advances in textile chemistry.—AMERICAN CYANAMID COMPANY, 30 Rockefeller Plaza, New York 20, N. Y.

762. ONYX TECHNICAL DATA SHEETS—Two new data sheets describing the use, advantages, and applications of Xyno Resins S 69 and Xyno Resin 3862.—ONYX OIL & CHEMICAL COMPANY, Jersey City 2, N. J.

785. HOSIERY FINISHES AND FORMULAE—Attractive new booklet describes the Amalgamated line of hosiery finishes and giving numerous finishing formulae.—AMALGAMATED CHEMICAL CORPORATION, Philadelphia 34, Pa.

768. DU PONT PEROXIDE BLEACHING SYSTEMS—New book illustrating and describing this continuous peroxide bleach system. Layouts and other information included.—E. I. DU PONT DE NEMOURS & CO., ELECTROCHEMICAL DEPT., Wilmington, Del.

768. TEXTILE CHEMICALS—Buying guide and reference book giving facts about Amalgamated Products, the fabrics on which they give best results, their proper application, and their chemical composition.—AMALGAMATED CHEMICAL CORP., Philadelphia 34, Pa.

769. SURFACE TENSION DEPRESSANT — The Booklet, "Mercerizing and Alkamerce—The Ideal Dry Mercerizing Penetrant," introduces a new product which can be used as a wetting agent; a dye leveling agent, a penetrant in package dyeing.—HART PRODUCTS CORP., New York, N. Y.

771. "STARCH STABILIZER" — Folder on Vanesta, a product used for textile sizing and printing, discussing stabilization and the results obtained. —R. T. VANDERBILT CO., New York 17, N. Y.

773. TECHNICAL CHEMICAL DATA SHEETS—Complete set for dyeing, printing and finishing operations, showing major operations, performance and advantages.—ONYX OIL & CHEMICAL CO., Jersey City 2, N. J.

774. ROYCE TEXTILE CHEMICALS—This booklet briefly describes the leading Royce products for textile processing printing, dyeing and finishing.—ROYCE CHEMICAL COMPANY, Carlton Hill, N. J.

775. CAUSTIC SODA—Bulletin No. 6, an 80-page technical bulletin, is the latest in Solvay's well-known series. The text is profusely illustrated with photographs, tables, graphs and diagrams.—SOLVAY SALES DIVISION, 40 Rector Street, New York 6, New York.

776. SERIZYME—Bulletin describing the properties and characteristics of Serizyme, a standardized liquid proteolytic enzyme preparation which can solubilize various types of protein substances.—WALLERSTEIN COMPANY, INC., 180 Madison Avenue, New York 16, N. Y.

777. HOSIERY DYEING—Catalog on hosiery dyeing machinery, skein dyeing machinery, package dyeing, extracting and drying equipment. — SMITH, DRUM AND CO., Philadelphia 33, Pa.

KNITTING . . .

800. KNITTING MACHINES — Booklets for hosiery, underwear, and outerwear, Series of illustrated booklets, each devoted to single-type circular knitting machine, full description of machine and product with technical data.—SCOTT AND WILLIAMS, INC., New York, N. Y.

801. THE WILDMAN SINGLE-HEAD FULL-FASHIONED HOSIERY MACHINE—Literature on request from the WILDMAN MFG. CO., Full-Fashioned Division, Norristown, Pa.

803. THE TUBE-TEX FOR TUBULAR KNIT GOODS—Bulletin describing this modern machine which extracts, processes, dries, conditions and folds in one continuous operation, lowering costs, saving labor, power, space, water.—WM. W. BUTTERWORTH & SONS CO., Philadelphia, Pa.

804. STATISTICAL SURVEY—Covering the Full-Fashioned Hosiery knitting industry in the United States and Canada.—TEXTILE MACHINE WORKS, Reading, Penn.

809. TEXACO IN THE KNITTING INDUSTRY—Folder on knitting mill lubrication.—THE TEXAS CO., New York, N. Y.

810. ALUMINUM BEAMS—Catalog No. 1-21 describes Hayes magnesium and aluminum specialties for the textile industry, illustrates this company's beams that are one-third the weight of conventional type.—HAYES INDUSTRIES, INC., Jackson, Mich.

812. CIRCULAR KNITTING MACHINES—Interesting, informative and well illustrated is this six-page folder, just released, which describes this company's small diameter circular knitting machine.—H. BRINTON COMPANY, Philadelphia 24, Pa.

813. THE NEW REINER HIGH SPEED TRICOT MACHINE—168" or 84" knitting widths. A richly illustrated catalog describing the many novel features of construction and performance. — ROBERT REINER, INC., Weehawken, N. J.

816. THE NEW REINER KAYLOOM—A combination Knitting Weaving Loom, featured in an illustrated catalog, showing filler attachment and other important points about this machine. — ROBERT REINER, INC., Weehawken, N. J.

817. AUTOMATIC SELECTIVE STRIPPING MACHINE—Descriptive and illustrative folder, entitled "If It's Stripes, Consult Brinton," now available. Important mechanisms involved in this process are described.—H. BRINTON COMPANY, Philadelphia, Pennsylvania.

818. MILTON LIGHT METAL BEAMS FOR EVERY APPLICATION—Catalog 45-A describing Light Metal Tricot Beams made in Standard and Special sizes plus Special Purpose Light Metal Textile Equipment.—MILTON MACHINE WORKS, INC., Milton, Pa.

820. VARIABLE STRIPES AND PLAIDS — Booklet describing Supreme Models SA and SA-ROF Stripers for knitting plaids, checks, "flatless" designs and variable stripes.—SUPREME KNITTING MACHINE CO., INC., Brooklyn 6, N. Y.

822. HIGH SPEED JERSEY CIRCULAR MACHINE—Complete illustrated brochure showing features and highlights of this 100 yard per hour machine. Also available — New Cylinder Chart.—SUPREME KNITTING MACHINE CO., INC., 105 Johnson Ave., New York.

SEWING MACHINES . . .

904. CONDENSED CATALOGUE — A 40-page pocket-sized booklet illustrating and describing sewing machines adaptable for practically all phases of the textiles trade.—WILLCOX & GIBBS SEWING MACHINE CO., New York, N. Y.

912. ELASTIC HEMMING AND INSERTING MACHINES—Bulletin No. 833, illustrating and describing the improved high speed machine Style 992-5 for work on undergarments, dresses, pajamas, etc.—WILLCOX & GIBBS SEWING MACHINE CO., New York, N. Y.

915. THE NEW UNION SPECIAL LOCKSTITCH MACHINE—Information on the new model which cuts production time on sewing operations is contained in Bulletin No. 258.—UNION SPECIAL MACHINE CO., Chicago 10, Ill.

MATERIALS HANDLING . . .

1001. HOW TO DETERMINE WHERE OVERHEAD MATERIALS HANDLING EQUIPMENT CAN BE USED PROFITABLY — Profusely illustrated. Give clear, concise understanding of materials handling. Helps you to determine where and what equipment might be used to speed production and increase profits. — CLEVELAND TRAMRAIL DIV., Wickliffe, Ohio.

1002. CATALOG NO. 22—An attractive illustrated catalog describing in detail the Shamrock skipping containers and the new canvas trunks for textile use.—MEESE, INC., Madison, Ind.

1003. CASTERS AND WHEELS—192 pages, describing casters and wheels suitable for all types of industrial applications. Every mechanical engineer and purchasing agent should have this.—DARNELL CORP., LTD., Long Beach, Calif.

1005. BASKETS, HAMPERS & TRUCKS—This 24-page catalog is profusely illustrated and contains complete description on the Dandux line, especially designed for the textile industry.—C. R. DANIELS, INC., Daniels, Mr.

1006. LANE CANVAS BASKETS—16 page illustrated booklet describing the Lane line of canvas baskets for textile use.—W. T. LANE & BROTHERS, Poughkeepsie, N. Y.

1007. OVERHEAD HANDLING EQUIPMENT — 56 pages of illustrations showing successful applications of monorail systems to meet every kind of handling problem. — THE AMERICAN MONORAIL CO., Cleveland, Ohio.

1008. CASTERS AND WHEELS—An illustrated booklet with complete specifications showing a complete assortment of Cotton Textile Casters.—THE COLSON CORP., Elyria, Ohio.

1010. CONVEYOR KEY BOOK—A guide to production "step-ups" now possible with modern conveying. Shows time-and-effort savings. Well-illustrated with photos showing plant layouts and showing where, how and why different types of conveyors are used for maximum results.—LOGAN COMPANY, INC., Louisville, Ky.

1025. CAB-OPERATED AND FLOOR-OPERATED ELECTRIC HOISTS—Bulletin No. 127 describing and illustrating electric hoists of various types and capacities. — SHEPARD NILES CRANE & HOIST CORP., Montour Falls, N. Y.

1027. SINGLE BEAM CRANES—Bulletin No. 130 describing and illustrating the new improved type of overhead traveling crane.—SHEPARD NILES CRANE AND HOIST CORP., Montour Falls, N. Y.

1030. C-D HOLLOW WARE—This 32-page catalog, R-11, profusely illustrated in color, shows Continental-Diamond's line of boxes, trucks, cans, barrels, baskets and trays. Complete description and specifications are given on each item.—CONTINENTAL-DIAMOND FIBRE CO., Newark 38, Del.

MISCELLANEOUS . . .

1101. AUTOMATIC BOBBIN REFINISHER—A descriptive bulletin illustrating and describing method of refinishing throwing bobbins on a production schedule.—J. M. NASH COMPANY, 2300 N. 30th St., Milwaukee, Wis.

1102. BALING PRESSES—An illustrated folder describing this manufacturer's complete line of balers for all materials. Both Downstroke and Upstroke models.—ECONOMY BALER CO., Ann Arbor, Mich.

1103. UNBRAKO SCREWS — Illustrated 16-page booklet No. 570 gives data on Unbrako hollow set screws, with knurled point, self-locking features. Includes miscellaneous screw and locking nut data.—STANDARD PRESSED STEEL CO., Jenkintown, Pa.

1104. INTERPRETATION OF ANALYSIS — In compiling this brief collection of terms which most frequently appear in analysis of surface active chemicals, an attempt has been made to explain as clearly as possible the meaning of these terms to those who have had little or no chemical training. —NOPCO CHEMICAL CO., Harrison, N. J.

1107. AUTOMATIC QUILL POLISHER—Bulletin describes production machine for refinishing loom bobbins. Tells how quills can be kept in perfect condition at minimum labor cost.—J. M. NASH CO., 2300 N. 30th Street, Milwaukee 10, Wis.

1108. FABRICATION OF U. S. STAINLESS STEELS—136-page book covering use of stainless steel in textile equipment from cutting to cleaning. Includes corrosion-resistance tables for chemicals.—CARNEGIE - ILLINOIS STEEL CORPORATION, Pittsburgh, Penn.

1111. BRUSHES—A 26-page booklet is now available which describes and illustrates this manufacturer's line of brushes for the textile industry.—GASTONIA BRUSH COMPANY, Gastonia, N. C.

1114. SCOTCH TEXTILE TAPES—Four page brochure containing photographs and descriptive information on the many uses for pressure sensitive Scotch Tapes in the textile industry.—MINNESOTA MINING & MFG. CO., St. Paul, Minn.

TEXTILE INDUSTRIES, 806 Peachtree St., N.E., Atlanta 5, Ga.

Please send me, without obligation, free booklets or further information on New Equipment items described in the April, 1950, issue of TEXTILE INDUSTRIES.

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Firm Name . . . . . Position . . . . . .

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Street . . . . . .

SUPPLIERS' NEWS

WHAT THEY ARE DOING

Fletcher Works of Philadelphia, Pa., is this year completing 100 years of progressive service to American industry. Founded in 1850 by W. P. Uhlinger, the firm became engaged in the manufacture of ribbon looms, Jacquard machines, rotary knitting machines, and sewing machines. In 1864 centrifugal extractors were added to the line. With the purchase of the Scranton Silk Machine Co. in 1928, throwing machinery was manufactured. Today, the company is on the threshold of the second century of the firm's business.

Ernest S. McClary, secretary of E. W. Bliss Co., and William M. Jennings of New York City, have been elected to the board of directors of **H & B American Machine Co.** At the same time it was announced that William M. Fraser, vice-president in charge of manufacturing at H & B, has also been elected to the board.

The appointment of Dr. Wilbur H. Miller as technical representative and assistant manager of the Washington, D. C. office has been announced by the **American Cyanamid Company,** New York, N. Y.

William H. Randolph, Jr., southern manager of **A. E. Staley Mfg. Co.,** Industrial Division, has announced the appointment of William N. (Bill) Dulaney as assistant southern manager, with headquarters at 2000 Rhodes-Haverty Building, Atlanta, Ga.

Harris C. Miller, former process study engineer, has been promoted to the sales staff of the **Hooker Electrochemical Co.,** Niagara Falls, N. Y., and is assigned to the New York sales area.

S. A. Press, former sales manager of the John Lucas Paint Co., New York, N. Y., has joined the **Swan-Finch Oil Corp.,** New York, as general sales manager.

American Cyanamid Company, Calco Chemical Division, Bound Brook, N. J., has announced the following appointments: H. E. Millson, assistant director of the Application Research Department in charge of the Dyes Technical Evaluation Section; Dr. T. F. Cooke, as-

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MILTON WARP BEAMS

for BROAD, NARROW FABRIC, RIBBON, VELVET, CARPET LOOMS

BROADLOOM BEAMS

For C & K Looms (pictured) and Draper Looms (with let-off gear). Steel barrels, cast iron flanges.

RIBBON LOOM BEAMS

Steel barrels, with your choice of adjustable head and fixed shaft (pictured) or fixed head with removable shaft.

Write for Catalog 45 (Steel) or Catalog 45-A (Light Metal)

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Series 14 of typical "H-W" CONDITIONER applications

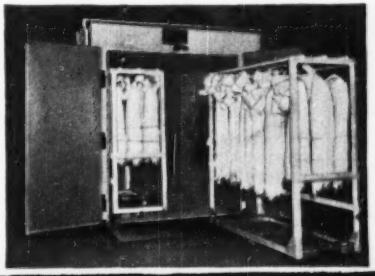
Northmont Hosiery Corporation

REPORTS advantages of "H-W" CONDITIONER

"With the installation of the 'H-W' CONDITIONER, our perfects on 15 denier monofilament nylon have been greatly increased. Further, looping and seaming have been speeded up . . . and mending reduced to a minimum.

"Although the 'H-W' Conditioner was installed recently, it has paid for itself after only several months' operation. This is the result of the improved conditioning of our 15 denier monofilament stockings which sets the stitch so that picks and pulls are greatly reduced. Production in the looping and seaming department is thereby speeded up.

"We have found maintenance to be at a minimum, and the operation of the 'H-W' Conditioner both economical and dependable."



View of "H-W" Conditioner in Northmont Hosiery Corporation Mill, Reading, Pa.

Full particulars in Bulletin HI-3, yours for the asking.

The Industrial Dryer Corporation
STAMFORD, CONN.

All Eyes in Textiles

North and South

— Will Turn Toward —

ATLANTIC CITY

May 8th-12th, 1950

for the

AMERICAN TEXTILE MACHINERY EXHIBITION

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sistant director in charge of the Products Application Section: R. J. G. Schofield, section director in charge of the Textile Dyeing and Printing Group of the Dyes Technical Evaluation Section.

All manufacturing activities of the **MacBeth Corporation,** together with executive and general offices, are now located in a new plant at Newburgh, N. Y. With the larger amount of space available, expansion of manufacturing and research facilities is made possible.

The **Celanese Corporation of America** has received the **1949** Award for Chemical Engineering Achievement. This award was sponsored by a group of senior engineering educators under the name "Chemical Engineering."

James H. Gilman, Jr., has been made advertising manager of **Draper Corporation,** Hopedale, Mass. He has

Mr. Gilman

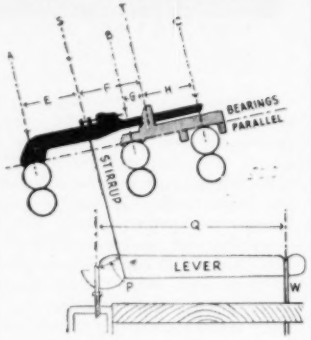
been with the firm since 1946 in various capacities.

O. F. Zurn Company has appointed Richard O. Trost as southern manager of its plant at Knoxville, Tenn. Allan Sergeson is now representative for Tennessee, Georgia, and Alabama, with headquarters in Charlotte, N. C.

E. I. DuPont de Nemours and Company has announced the retirement of Maurice du Pont Lee, general advisor to the chief engineer.

Several personnel changes have taken place in the acetate division of the **DuPont Company.** Henry C. Froehling has been transferred from New York to Wilmington, Del., as manager of development and promotion of "Orlon" and "Acele" acetate rayon; Daniel M. Thornton, III, is now manager of sales development section; and Frederic C. Allen was made assistant district sales manager in the New York office for acetate rayon yarns and Orlon acrylic fiber.

How to Check Weights on your Spinning Rolls



A, B and C } Pressures on Front, Middle and Back Rolls as shown above.
E, F, G, and H } Distances shown measured in inches.
P — The perpendicular distance from stirrup to contact point at top of lever screw. When measuring, be sure rule is held so angle with stirrup is 90°.
Q — The distance from contact point at top of lever screw to weight hook.
T — The point of contact between saddles, as well as the pressure on the Back Saddle.
S — The point of contact between stirrup and Front Saddle, as well as the pressure on the Front Saddle.
W — The weight on the lever in pounds.

Formulae for Figuring Weight on Rolls:

For Pressure on Front Saddle:	(W)(Q) = S(P)	Solve for S
For Pressure on Front Roll:	(S)(F) = A(E+F)	Solve for A
For Pressure on Back Saddle:	(S)(E) = T(E+F)	Solve for T
For Pressure on Middle Roll:	(T)(H) = B(G+H)	Solve for B
For Pressure on Back Roll:	(T)(G) = C(G+H)	Solve for C

DIXON suggests a careful Check of Weighting on all Rolls

The above weight ratio formulae are designed to help you to a more complete and visual understanding of the many factors affecting good weighting and the proper functions of an ideal saddle assembly. Knowledge of the hows of correct weighting and the application of this knowledge in practice may prevent many a drafting headache.

Cut out this diagram and formulae and keep for your future reference or we will send you reprints on request. If you encounter weighting problems which these formulae do not solve, send them to us for solution.

DIXON
LUBRICATING SADDLE CO.
Established 1876
BRISTOL — RHODE ISLAND

Southern Sales Representatives:
R. E. L. HOLT, JR., & ASSOCIATES
P.O. Box 1474 Greensboro, N. C.
•
J. W. DAVIS, Mfg'rs Agent
P.O. Box 745 Columbus, Ga.

ASK YOURSELF...

wouldn't many textile machine parts be BETTER if molded in PLASTICS ?

THE ANSWER...

Of course—Wide awake mills today realize plastics offer strength, toughness and flexibility as well as non-corrosive and non-rusting properties.

Color—in plastics gives better visibility of moving parts and insures quick identification.

Plastics—will out wear many old fashioned wood and metal parts.

Think it over, investigate the possibility of plastics in your plant.

ASK us about it — or better still have one of our field men call on you to discuss your individual problems.

PATENT

BUTTON CO. OF TENNESSEE

P. O. Box 1271

KNOXVILLE, TENNESSEE

Arthur D. Little, Inc., has announced the election of Charles B. Belknap of Owens-Illinois Glass Co. to its board of directors.

Allen Adkins has joined the staff of **Harris Research Laboratories,** Washington, D. C.

William F. MacDonald has succeeded Major Aaron E. Carpenter as president of **E. F. Houghton & Co.**

Mr. MacDonald

Major Carpenter is now chairman of the board of directors and will remain chief executive of the firm.

The **Reliance Electric & Engineering Company** has added Jack H. Eichler to the staff of its Boston, Mass., office as field sales engineer. Robert J. Overstreet, sales engineer in the southern territory, has moved his headquarters from Greenville, S. C., to 701 Liberty Life Building, Charlotte, N. C.

At a recent meeting of the **Maple Flooring Manufacturers Association,** W. C. Abendroth, Reed City, Mich., was re-elected president. Other officers elected were: D. S. DeWitt, Oconto, Wis., vice-president, W. W. Gamble, Jr., White Lake, Wis., treasurer, and L. M. Clady, Oshkosh, Wis., secretary-manager.

John W. Wilkinson, formerly with Fairbanks, Morse & Co., is now general sales manager of the **McKiernan-Terry Corporation.**

Sonoco Products Co. has announced the election of Charles W. Coker to the office of executive vice-president. Richard G. Coker was made vice-president in charge of engineering and will continue also as secretary.

The tube division of the **Champion Container Co.,** located in Philadelphia, Pa., has been purchased by **Sonoco Products Co.** George Hynes, former president of the tube division, will continue as general manager.

A textile department, with branch offices in Charlotte, N. C., and Atlanta, Ga., has been organized by

DOFF BASKETS

of

finer quality for more economy

BASKETS

HAMPERS

TRUCKS

HANDLING

and

SHIPPING

BAGS

WORK TABLE

COVERING

BIN

LINERS

by

DANDUX

in snagless Glosstex, too!

C. R. DANIELS, INC.

DANIELS, MD.

Send for Catalog No. 1-4

M·B "AMOSKEAG" PNEUMATIC ROLL PICKER

MODEL A.V.T.
20,000 R.P.M.

This is NOT a grinder, but the original pneumatic tool especially designed for the SPECIFIC Purpose of
REMOVING LINT and FLY
from the top rolls and other parts of the drafting elements on
SPINNING FRAMES also ROVING FRAMES

Spindle design permits using PICK (which gathers the fly and lint) 3/16" diameter by 5" long when used on Spinning Frames and 3/16" diameter by 7" long when used on Roving Frames. Exhaust air directed back of roll picker to prevent fly and lint from being blown into yarn when spinning—PATENT APPLIED FOR. Special grease-sealed bearings. No lubrication required. Weight only 14 oz.

WILSON F. HURLEY ..... P. O. Box 1443, Greenville, So. Car.
Virginia and South Carolina
J. W. DAVIS ..... P. O. Box 745, Columbus, Ga.
Georgia, Alabama, Mississippi, Louisiana
CHARLOTTE SUPPLY CO. ..... Charlotte 1, No. Car.
North Carolina Representative
GEO. M. HAND, c/o Matthews Equipment Co., 509 No. 25th St., Reading, Pa. . . . N. Y., Pa., Maryland and New Jersey Representative
R. D. HUGHES SALES CO. ..... 1812 Main St., Dallas 1, Texas
Texas, Oklahoma and Arkansas
MATTHEWS EQUIPMENT CO. ..... 93A Broadway, Providence 3, R. I.
New England Representatives

M·B PRODUCTS
130-134 Larned St.
DETROIT 26, MICHIGAN

THE KENT FAST CLEANING TEAM

Keeps Floors Clean • Keeps Profits Up

Clean floors mean less product spoilage, better appearance . . . improve sanitation! KENT Floor Machine scrubs, polishes, steel-wools . . . KENT Electric Mopper picks up dirty water, converts to dry use too! Write for full information.

You're invited to visit us at Booths 47-48
American Textile Machinery Exhibition
May 8-12 Atlantic City, N. J.

CLEAN WITH KENT EQUIPMENT

THE KENT COMPANY, INC 410 CANAL STREET ROME, N. Y.

JENKINS RENEEDLING CO., INC.

The Largest Comber Reneedling Plant in the world.

Experienced Reneedling Specialists

•

All Makes and Types

HALF LAPS and TOP COMBS

Reneedled to Factory Specifications
We use English Made Needles exclusively.

•

We carry a stock of 50 million needles at all times to insure our customers' combers operating.

•

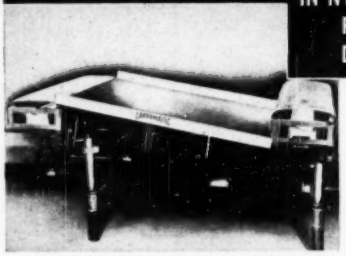
GASTONIA, N. C.

Our half laps are guaranteed to gauge uniformly.

Dial 5-0522 **N. Marietta St.**

SAVE THOUSANDS OF DOLLARS

IN NYLON SETTING
RESIN CURING
DRYING



PATENTS PENDING

Write for the facts—including technical data—on this revolutionary new development.

CARBOMATIC

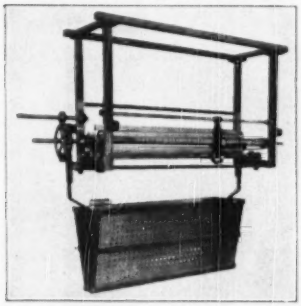
UNA-RAY INFRA-RED GENERATOR

with Complete, Catalytic Combustion

Does away with expensive dry-box and other equipment in drying and polymerizing as well as nylon setting—in one fast operation. Safety . . . without scorching, spotting, "gas fading" or deterioration of fabric. Insures uniform color both sides. Foolproof . . . and guaranteed! *Ask for Bulletin C-4.*

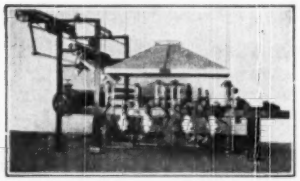
CARBOMATIC CORPORATION • Pioneers in Textile Infra-Red
24-81 47th Street Long Island City 3, N. Y.
Southern Branch: Textile Specialty Co., Greensboro, N. C.
New England Rep.: H. E. Linderson, 35 Westminster St., Providence, R. I.
(Phone Jackson 1-7075)

MODERN FINISHING MACHINERY



BALL BEARING TRAVERSE PLAITER

Made particularly for handling Rayons and Cottons. Traveling pateye folds cloth in rope form from dye becks into trucks. Parts of rust resisting material.



FOUR BURNER SINGEING MACHINE

For Worsteds and Tropicals; both sides singed in one run. Adjustable throughout. We also build Vertical Singers for Cottons.

FOR BEST EXTRACTION

Patent Reenforced Adjustable Vacuum Extracting Box with Automatic Slot Seals. Used in combination with dry cans, scutchers, mangles, and continuous machines.

AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION ATLANTIC CITY MAY 8-12, 1950

We shall be pleased to welcome our customers and friends at our spaces 397, 398, 399.

BIRCH BROTHERS, INC.

BIRCH TREE

32 KENT STREET

SOMERVILLE, MASS.

Phone: PRospect 6-3512

Southern Representative:
John C. Cosby, P. O. Box 212
Greenville, S. C.

HAROLD W. BIRCH CLIFFORD W. BIRCH
STANLEY W. BIRCH

Mason-Neilan Regulator Co., Boston, Mass., with James M. McAlear in charge. The Charlotte office is being managed by Malcolm Duncan, and E. P. Head is in charge of the Atlanta branch.

Sim Boyd, formerly with Piedmont Mill Supply Co., is now general manager of **Matthews-Morse Sales Company**, Charlotte, N. C., according to a report from the Columbia (S. C.) Supply Co., which has a controlling interest in the Charlotte firm.

James H. Binger, associated with **Minneapolis-Honeywell Regulator Co.** since 1943, has been elected vice-president and general manager of the Belfield Valve division. K. R. Knoblauch was made manager of sales of valve products for the industrial division of this firm.

Stanley Whiteway, formerly public relations director of **Proctor & Schwartz, Inc.**, has become editor of the United Parcel Service's employee publication, "The Big Idea." Some of his public relations duties at Proctor & Schwartz have been absorbed by Charles Hill, personnel director; Pierre Blommers is now editing the employee publication, "The P&S News."

M. Russell Kambach has been appointed advertising manager for **Aluminum Co. of America.** He is succeeded as assistant advertising manager by Jay M. Sharp.

William Iselin and Co., Inc., has announced the election of John Cole as assistant secretary of the firm. Mr. Cole will assist in the direction of new business activities.

A branch of the Pawtucket, R. I., fabric research department of **Hemphill Company** is being established at High Point, N. C., for the purpose of serving southern mills.

The Textile Resin Department of **American Cyanamid Co.**, Bound Brook, N. J., has appointed John J. Derrig sales manager for the New England territory. Alden Nute has been made New England technical service manager.

Joseph M. Temple has succeeded John B. Deaderick as manager of the Baton Rouge, La., office of **The Foxboro Co.**, Foxboro, Mass., with headquarters at 115 N. 19th St., Baton Rouge 8, La. Mr. Deaderick is now manager of the Tulsa, Okla., office.

R. A. Roosevelt, former advertising manager, has been promoted to sales manager of the **Eriez Manufacturing**

Look...

No Sharp Corners

No Sharp Edges

. . . smooth Inside and Out

. . . and permanently smooth! No snagged hands, no damaged yarn, and no danger of cutting, tearing, or gouging machinery or work.

Excel Utility Truck No. 1300

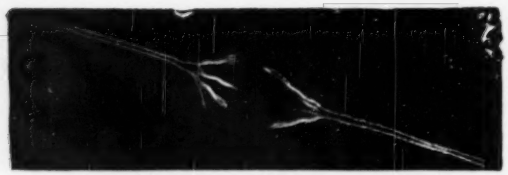
This EXCEL No. 1300 Truck is made of heavy 16 gauge non-rustable galvanized iron, metal locked and riveted, to outlast any ordinary truck.

Made to customers' specifications.
Thousands already in use.

Excel
TEXTILE SUPPLY CO.

Lincolnton, N. C.

"Trucks for the Textile Industry"



ENDS DOWN COST MONEY!

Reduce Them!

BRETON TWISTER RING GREASE

- **For Better Lubrication**
- **Longer Traveler Life**

A single application lasts longer, reduces consumption, saves money! ● BRETON TWISTER RING GREASE is furnished in consistencies to suit your conditions.

It will pay you to make a test!

BORNE SCRYMSER COMPANY

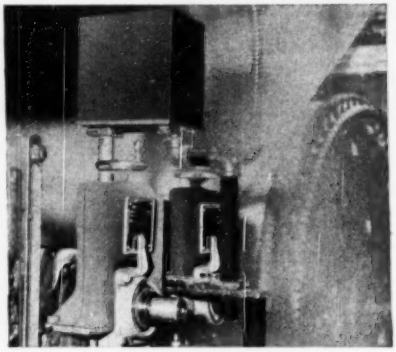
ESTABLISED 1874 — *75th Anniversary*

ELIZABETH, N. J. — CHARLOTTE, N. C.

Increase Weaving Quality and Efficiency

with

THE NORCROSS VISCOMETER for Correct Viscosity Sizing



NORCROSS PRESSURE REGULATORS

for correct squeeze roll application of pressure

Over 150 Mills Equipped — Write for Bulletin

NORCROSS CORPORATION

247 Newtonville Ave. Newton, Mass.

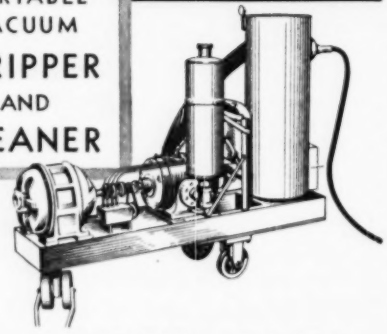
Southern Office

123 N. POPLAR ST. CHARLOTTE, N. C.

Here's the 30 HP HIGH VACUUM MACHINE *you asked for!*

PORTABLE VACUUM STRIPPER AND CLEANER

ALL U. S. PATENTS APPLIED FOR.



Cotton Mills — eliminate dust and fly. Get your spinning frames and looms cleaned right and strip your cards by Vacuum.

Woolen Mills — save by Vacuum Stripping

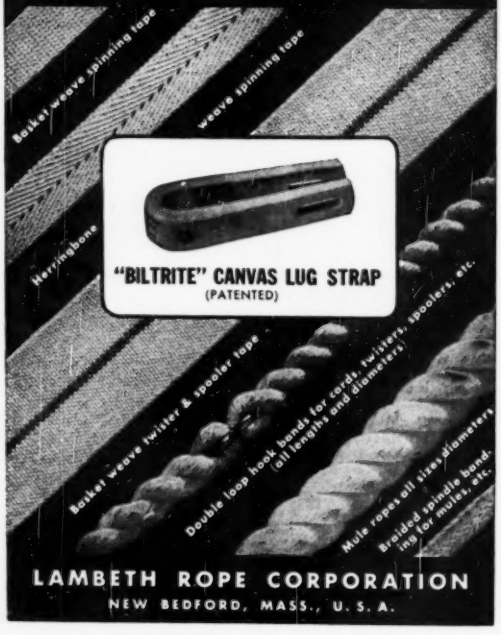
Write for Bulletin S-100

New England **MACHINE WORKS**

574 E. MAIN ST., WATERBURY, CONN., U.S.A.

LAMBETH PRODUCTS

FOR SPINNING, TWISTING, SPOOLING, WEAVING


Basket weave spinning tape
weave spinning tape
Herringbone
"BILTRITE" CANVAS LUG STRAP
(PATENTED)
Basket weave twister & spooler tape
Double loop hook bands for cards, twisters, spoolers, etc. (all lengths and diameters)
Braided spindle banding for mules, etc.
Mule ropes all sizes, diameters

LAMBETH ROPE CORPORATION

NEW BEDFORD, MASS., U. S. A.

Co. The company has also announced the appointment of the O'Brien Industrial Equipment Company, San Francisco, Cal., as sales representative in that area.

Aluminum Company of America's Export Division is now headed by John M. Mitchell, with G. B. D. Peterson in charge of the division's New York office.

Henry B. Ahlers was appointed assistant to John K. Hodnette, vice-president of **Westinghouse Electric Corporation.** His headquarters will be in Pittsburgh, Pa. O. O. Rae has been appointed manager of the corporation's southeastern district, succeeding Thomas Fuller, retired. Mr. Rae has been with the company since 1919. His new assistant is R. B. Church, Jr. B. M. Gatling, Jr., is now central station division manager.

Mr. Rae

Atkinson, Haserick & Co., Boston, Mass., has announced the appointment of F. E. Bozeman, formerly with Dan River Mills, Inc., as head of its new southern regional office and warehouse in Charlotte, N. C. Territory extending from Maryland to Texas will be covered by this office.

Cameron Machine Company, Brooklyn, N. Y., has announced the resignation as vice-president and sales manager of Joseph S. Scheuermann. President P. J. Lathrop will serve as sales manager until a successor has been named. Eugene Ward, former service manager, is now assistant sales manager.

Joseph H. Girdler and Howard B. Johnson, of **Atlantic Steel Company,** and C. B. McManus, president of the Georgia Power Company, were recently elected directors of the Atlantic Steel Co. All officers of the firm were re-elected.

An expansion program at their Cel River plant at Rock Hill, S. C., is being considered by the **Celanese Corporation of America.** It is reported that the spinning, twisting, and beaming departments will be greatly increased.

James Cook has joined the **Cook-P & N Machine Co.,** Boston, Mass., as vice-president.

H. Walter Regensburger succeeds Harry L. Strube, retired, as chief engineer of the general engineering department of **Link-Belt Company.** Mr. Regensburger will be assisted by Charles M. Young, Jr., and Harold F. Watson.

Frank R. Freyler has succeeded William Arthur, retired, as manager of **Allis-Chalmers'** mid-Atlantic region. Mr. Freyler has been with the firm for 21 years. Calbert L. Dings is now sales representative in the firm's Charlotte, N. C., district office.

HALLOWELL

Steel Collars

HALLOWELL Solid Steel Collar, functionally proportioned throughout . . . precision-machined so faces run perfectly true . . . are beautifully polished all over . . . yet they cost less than common cast iron collars. 3" bore and smaller are made from Solid Bar Stock. To make sure the collar won't shift on the shaft, they are fitted with the famous UNBRAKO Knurled Point Self-Locking Socket Set Screw—the set screw that won't shake loose when once tightened. HALLOWELL . . . a "buy word" in shaft collars . . . available in a full range of sizes for

IMMEDIATE DELIVERY

Write for name and address of your nearest HALLOWELL and UNBRAKO Industrial Distributors.

See us at Space 128 A. S. T. E. Exposition, April 10-14, Convention Hall, Philadelphia.

STANDARD PRESSED STEEL CO.
JENKINTOWN 34, PENNSYLVANIA

Swatch-Cutting
Sample Pinking
Machines

ALL SIZES and TYPES
Hand and Power
Write Today for Catalogues

CHANDLER MACHINE CO.
30 West St. Ayer, Mass.

BARNES SERVICE
Consulting Engineers
TO THE TEXTILE INDUSTRY FOR OVER ½ CENTURY
Surveys—Reorganizations—New Plant Developments for Cotton, Wool, and Synthetic Yarn and Cloth Processing, Bleaching, Dyeing, Printing and Finishing.

★ Plant Appraisals ★ Mechanical and Operating Surveys — New Methods ★ Scheduling and Planning ★ Work Load Studies, Job Analysis and Evaluation, with Incentive Plans ★ Standard Cost Installations ★ Cost Control Methods
Labormeter Burden-meter Waste-meter

BARNES TEXTILE ASSOCIATES, Inc.
10 HIGH STREET, BOSTON 10, MASS.
318 MONTGOMERY BLDG., SPARTANBURG, S. C.

Write for Bulletins on
CARDS, DRAWING FRAMES,
PERALTAS, FOLDERS, etc.
ALSO SPECIAL APPLICATIONS

CHAPMAN ELECTRIC NEUTRALIZER CO.
PORTLAND 6, MAINE
★ *Specialists in the Elimination of . . .* STATIC *SAFELY INSTANTLY*

CLASSIFIED ADS

BUSINESS—EMPLOYMENT—EQUIPMENT—PROFESSIONAL CARDS—OPPORTUNITIES

CLASSIFIED RATES

Rates are net, payable in advance each month. Page is 3 columns, 10 inches deep—30 inches to page. Space measured by even inch vertically by 1, 2 or 3 columns in width. Column width 2⅛ inches.
Transient rate for display classified, $8.00 per inch.
Contract rate for space within 12 months period as follows:

	Per Inch		Per Inch
12 inches	$7.50	48 inches	$6.75
24 inches	7.25	96 inches	6.50
36 inches	7.00	180 inches	6.00

POSITION WANTED: 10c per word per insertion; minimum charge $2.00. Cash with order. Box number address care of TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Ga., count as eight words. Advertisements for help wanted, equipment for sale, for rent or wanted, and professional cards are accepted at display rates only.

POSITIONS OPEN—MEN WANTED: We can place superintendent printing and color shop; night superintendent woolen cloth mill; superintendent or general overseer carding and spinning, spun rayons; rug designer; designer dobbies and jacquards; overseer woolen weaving; boss knitter on hosiery; foreman finishing acetates and rayons; second hand woolen finishing; overseer cotton spinning and winding; young textile school man for bleachery; industrial engineers; architects or architectural draftsmen; loom fixers (U. S. and foreign).

We invite correspondence with executives seeking positions and with employers seeking new personnel.

CHARLES P. RAYMOND SERVICE, INC.

294 WASHINGTON STREET — Phone: Liberty 2-6547 — BOSTON 8, MASS.

Over 50 years of confidential employment service for men seeking positions and employers seeking men.

For Sale

10-Kw Electric Plant

Compact unit with engine and generator in streamlined housing. Automatic control, push-button starting. 115/230 volt, single phase, 60 cycle, 3 wire generator driven by efficient Willys gasoline engine. Mounted on skids, complete with remote switches, wire and tools. Operated only 500 hours before replaced with power line service.

Suited for industrial, commercial, construction or agricultural use; ideal for stand-by service. Will sell at $900, which is less than half its initial cost. Address Box 352, c/o TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Ga.

MACHINERY AND SUPPLIES

8—Saco-Lowell Spinning Frames, 3½" Ga., 228 spindles, Band drive.
100—Deliveries Saco Pettee Drawing, 72 Del. Metallic, 18 Del. Common Roll, 6 Del. Frames, 12" coilers.
2—Supreme Jersey Circular Machines, Type MJ, 20" dia., 20 cut, 1248 needles, inserted wall cylinder, 50 GGE, 64 feeds, with 64 ends, top and bottom Crawford electric stop motions. Individual chain drive mounted on machine, motor. Serials: Machine 3250 MG, Cylinder 2219, Stop Motions C-6183. Motor AC, 1—½ HP, 1750 RPM, 220/440 volts, 60 cycle.
100M—8" Quills, fits Medium Whitin Spindle.
50M—8⅝" Quills, fits Medium Whitin Spindle.
40M—10 x 5 Whitin Roving Bobbins.

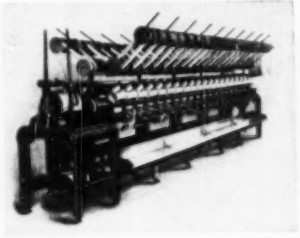
WILSON LEWITH MACHINERY CORPORATION

Post Office Box 4100 — *Warehouse:* Wilkinson Blvd.
CHARLOTTE, N. C. — *Phone 4-2403* — Behind Barbeque Lodge

FOR SALE

1—9 Color Rice Barton Printing Machine
2—90" Stainless Steel Jigs
1—10 Fan Loop Dryer, 40' x 92" revolving sticks.

CADGENE MACHINERY COMPANY
P. O. Box 1206
PATERSON — NEW JERSEY



REBUILT WINDERS

We thoroughly rebuild all types of Yarn Winding Equipment—Universal #5, #6, #10, #50, #60 and #90; Foster Model #12, #30 and #101, Lazenby, Oswald Lever, Sipp Eastwood, Atwood, George Payne.

STANDARD MILL SUPPLY

6708 Empire State Bldg. New York, N. Y. — 1064-1080 Main St. Pawtucket, R. I.
513 South Tryon St. Charlotte, N. C.

EATON & BELL

Patent Attorneys
1208 Johnston Bldg., Charlotte, N. C.
753 Munsey Bldg. Washington, D. C.

POSITION WANTED

As second hand in slasher or spooler department or both. Have about 20 years experience on plain and fancy colored work, the last several years as second hand on old type and modern type machinery. Can furnish good references, sober and good manager of help. Experienced with both union and non-union help. Reply to Box No. 362, TEXTILE INDUSTRIES, 806 Peachtree St., N. E., Atlanta 5, Ga.

WE BUY AND SELL
TEXTILE MACHINERY
THROUGHOUT THE WORLD!
GEORGE W. EGAN, INC.
"The Machinery Man Known Everywhere"
WOONSOCKET, R. I. — Cables—EGANX

SALARIED POSITIONS. $3600 to $30,000.

This confidential service for outstanding men who desire a new connection, will develop and conduct preliminary negotiations without risk to present position. Send name and address for details. Tomsett Associates, 1203-1 Berger Bldg., Pittsburgh 19, Pa.

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B. P. FISHBURNE
Registered Patent Attorney
702T McLachlen Building, Washington 1, D. C.

DYESTUFFS

Will buy your surplus and obsolete dyes and chemicals for cash.

NEW ENGLAND PRODUCTS CO.
91 Oliver St. — Boston, Mass.

FOR SALE

4 New CROMPTON & KNOWLES W3 AUTOMATIC LOOMS 92"—25 Harness—4x1 Box COMPLETE—Including Multiplier-Warp Stop Motion Bijur Oiling System—Veeder Root Pick Counter and all Electrical Equipment. Priced at less than today's factory quotation. Reply to Box No. 375, TEXTILE INDUSTRIES, 806 Peachtree Street, N. E., Atlanta 5, Ga.

KNITTING MACHINES

NEW — USED — REBUILT

Scott & Williams, Banner, Brinton, Reading, Lieberknecht—all types for full fashioned, seamless and circular mills. A complete line of dyeing and finishing equipment.

MORRIS SPEIZMAN CO.

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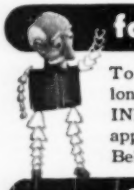

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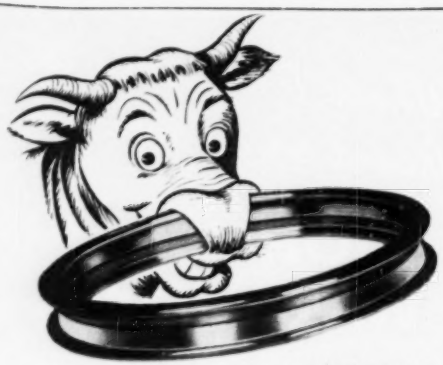

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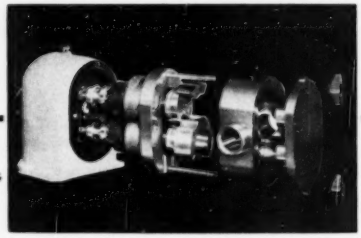

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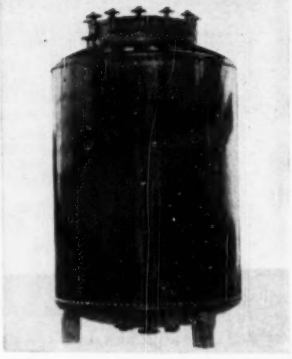

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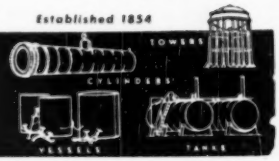

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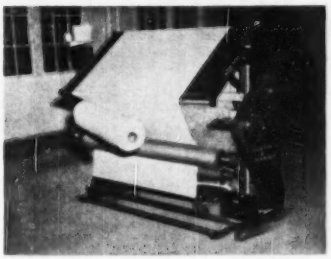

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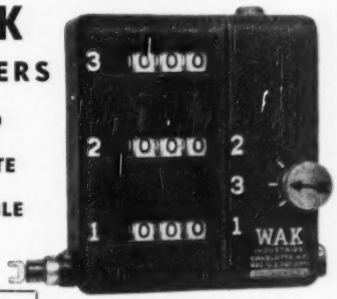

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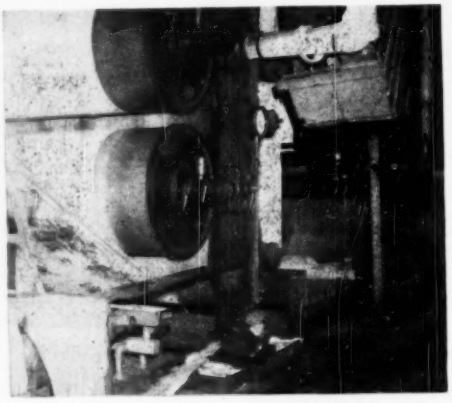

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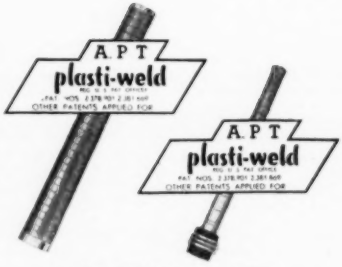

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Mc BRIDE

TEXTILE EQUIPMENT NEWS

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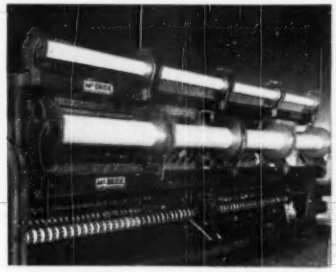
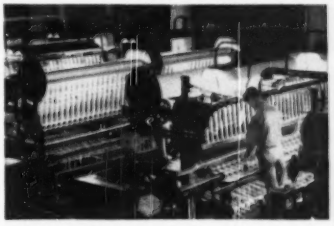
McBRIDE NARROW FABRIC LOOM BEAM INSTALLATIONS CUT COST AND IMPROVE PRODUCT QUALITY . . .

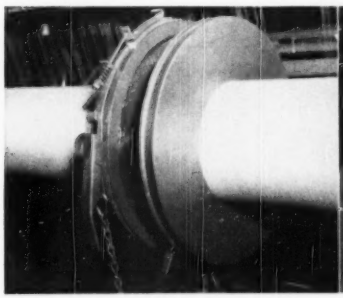




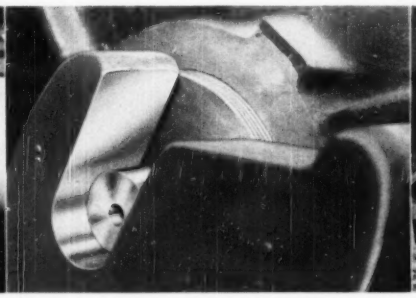
1. YOU SAVE the time and care of individual space tension adjustments because spools, hangers and weights are eliminated. **YOU SAVE** the down time of tying in short run spools. Beams are known to have runs of several months before replacement. **YOU SAVE** because McBRIDE LOOM BEAM INSTALLATIONS are made up of section beams that can be handled on normal width warping and slashing equipment.

2. PRODUCT QUALITY IS GREATLY IMPROVED because tension on each space is uniform. Tension is controlled on each beam with individual brake bands with quick tension release which can be brought back to original position without readjustment. One pleased mill owner remarked, "Our former firsts now look like seconds. We've set a new quality standard with McBride loom beam installations. We have less down time, more production time with McBride narrow fabric loom beam installation."*

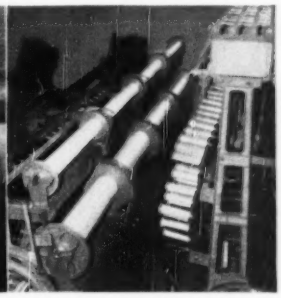
3. COMPLETELY ENGINEERED INSTALLATION tailored to your individual looms reduces installation time to the barest minimum. McBride beams and mountings are built as complete units that can be quickly bolted in place on your looms.



(a)



(b)



(c)

a. Close up of brake band shows ease of adjustment when necessary as beam runs down.

b. Detail of the McBride open end bearing and adjustable flange. (Optional) The completely machined open journal pocket is designed for easy loading of the full beam without danger of injuring the warp. These bearing stands are all machined in jigs, assuring perfect beam alignment clear across the loom.

c. Note how the McBride loom beam installation compares to the old top castle that it replaces. Great savings in down time and labor in tying up ends because of accessibility are realized in addition to improved product quality.

These looms may be placed back to back leaving a small aisle for handling the warp beams. On old installations, you gain the advantage of neat, clear aisles; and on new installations, you can gain floor space with the use of McBride section beams.

**name on request*

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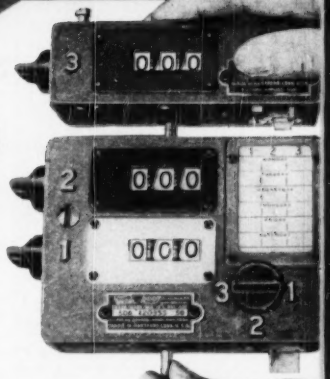
2. *Locked Counting Wheel:* Really 2 wheels in 1, one operating within the other. *This wheel stubbornly resists over-throwing,* when disengaged with shaft spline. And when engaged with the spline, wheel can be reset to zero.



These and other Veeder-Root "Vantage Points" will pay for new 2-3 Pick Counter equipment throughout your mill, in shortest time. *Why accept less?* Get in touch with your nearest Veeder-Root office *now.*

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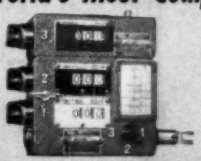
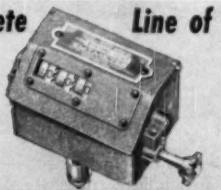
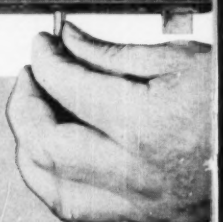


2-3 Convertible Hank Counter



Loom Cut Meter

2-3 Revolution Counter for Knitting Machines



Above: Adding 3rd Counting Unit to 2-3 Convertible Pick Counter

...all these and scores of other types...Send for Catalog T-48